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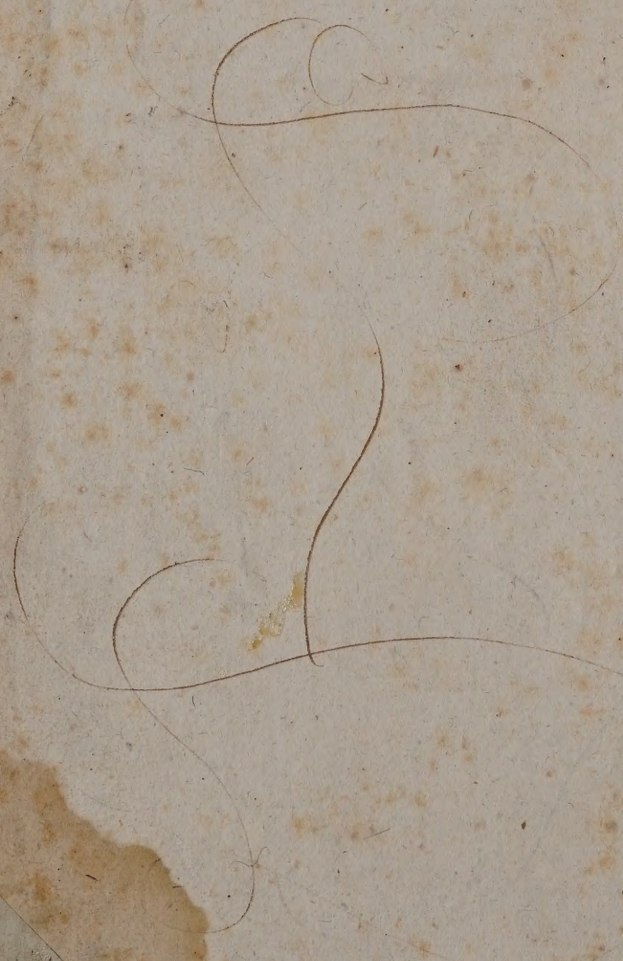

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CHIRURGICAL TREATISES.

A

TRactatus hi Chirurgici si prelo mandentur, magno id commodo Medicis pariter ac Chirurgis cessurum judicamus.

Georg. Ent Eques Auratus, Colleg. Regal. Med. *Lond.* Præses, M. D.

Tho. Coxe, Elector & Censor, M. D.

Dan. Whistler, Regestarius ac Censor, M. D.

Humphr. Brooke, Censor, M. D.

Tho. Franckland, Censor, M. D.

Thomas Sugrue his book

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SEVERAL CHIRURGICAL TREATISES.

By *RICHARD WISEMAN*,
Serjeant-Chirurgeon.

The Second Edition.

Thomas Wright his book

LONDON,
Printed by *R. Norton* and *J. Macock*, for *R. Royston*
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TREATISES

SEVERAL

CHIRURGICAL

TO THE

MOST SACRED MAJESTY

OF

CHARLES II.

KING

OF

GREAT BRITAIN,

FRANCE and IRELAND, &c.

ARE

HUMBLY DEDICATED

THESE

Chirurgicall Labours

OF

His MAJESTIES

most faithfull Servant,

and loyall Subject,

Ri. Wiseman.

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THE EPISTLE TO THE READER.

Reader,

THE *nobility and dignity of Chirurgery are too well known to want the help of an Oratour to ſet them forth. If a Panegyrick were neceſſary, it were beſt made by running through the Particulars of the Art, and the Hiſtory of the Diſeaſes cured thereby. He that ſhall duly conſider the deplorable miſery of mankind, and how much it wanteth relief in ſuch a multitude of Inſtances, muſt needs acknowledge us to be what Antiquity hath long ſince call'd us, viz.* The Hands of God. *Indeed the ancient* Grecians *in the days of Ignorance and Idolatry did not ſtick to teſtifie their reverence of the Eminent men of the Profeſſion, by referring them into the number of the Gods which they worſhipt. Nor have the latter times, though wiſer than to riſe to ſuch extravagancy, been backward in expreſſing their eſteem of us; which notwithſtanding they have guided with more diſcretion and uſefulneſs. In ſtead of ſuch Deification and fabulous Stories, they have rewarded us with Honour, Wealth, and Collegiate Foundations both in Univerſities and great Cities. Among which ſort our own Society in the City of* London, *eſtabliſhed by Kings, and frequently encouraged by freſh Grants from them, ought to have an honourable mention; the Profeſſors of which have contributed ſo much to the improvement of the Faculty, and to the honour of the Nation. The Anatomical part hath been ſignally promoted in it, ſo as to render it famous all over* Europe, *and every year to invite Forreiners to attend our Lectures from beyond the Seas. It had like to have done as great things in the Inſtitutionary part of Chirurge-*

ry,

ry, had the learned Lectures of that excellent Chirurgeon Doctor Read *been continued by a succession of such Professors. It being reasonable to imagine, that the Curiosity and Industry that hath been so eminent in our Nation in the Anatomical part, would have been the like in that also. Since it hath been our unhappiness to have that neglected, I hope it will not be ill taken if we that are Members of it do supply this defect by our own private Labours. This hath been already done by Mr.* Clowes, *Mr.* Woodall, *and some others, whose laudable Example I have adventured to follow, and to put my own Papers in Print; that what was at first intended for my private satisfaction, may be useful to others as well as to my self. In doing this, Reader, I have made a vertue of necessity, and imployed those hours for the publick service, which a frequently-repeated Sickness hath for this twenty years last past deny'd me the use of in my private occasions. It hath pleased God by casting me into such a condition to give me opportunity of reading and thinking, as well as practising. Both which are necessary to the accomplishment not only of an Author, but indeed of a Chirurgeon. I cannot be so uncharitable to my Brethren, as to wish them the like Sickness to oblige them to the like Retirements for contemplation and study. But I do heartily wish, that what was necessity in me may be choice in them,* viz. *that they would set apart some time for reflexion upon their Labours, and for comparing the Emperical part of the Profession with the Rational. They will soon find how many Gaps do still lie open in this goodly Fabrick, and how much is wanting to make the Building compleat. What defects do remain even in the History of Diseases themselves, and the plain practical things, wherein every expert Chirurgeon can correct the Authors he reads? This well considered cannot but spur him on to add his Observations to the bulk of what hath been heretofore heaped up for this purpose, and to contribute his endeavours to the finishing of what hath been begun, and thus far carried on, by other hands. As to my own performance, Reader, I must tell thee, that what I have chiefly aimed at in this Book hath been, perspicuity and conciseness in the Institutionary part of the same, and aptness in the annexed Observations; that so the whole may be made easie to the young Chirurgeon, and as instructive as may be. In all which I doubt not but the farther he goeth on in practice, the more of clearness and plainness he will find; and the whole so much better performed than a meer Academick could have done it, without being a Practitioner himself, as a Traveller can describe a Country to one that is taking a journey into it more sensibly and usefully, than one that hath only read of it and seen it in Maps.* Know,

to the READER.

Know, Reader, that as to these Treatises, though in preparation to them I have read all the eminent Chirurgical Authors, yet in the writing of them I was more conformed to my own judgment and experience, than other mens authority. This will consequently make them liable to the Censure of many sorts of men. Such Ancient Practitioners as are unwilling to be now learning a new lesson, will be angry that those Definitions and Descriptions, and sometimes Methods of Cure, are receded from, which they learned when young; those being the basis *on which they have built the whole superstructure of their Practice. I desire such men to content themselves with neglecting them; they being not written for their use, but for younger men, who have their Principles and Maximes of Chirurgery yet to chuse. Others, wholly taken up with the Novelties wherewith this Age aboundeth, will be angry that all the new Notions are not here pursued to nicety, and many little both Anatomical and Chymical Punctilio's inserted and brought in on all occasions, in stead of the old way of expressing the Accidents of Diseases, with their Causes and Cure. I would have these men consider, that I am a Practiser, not an Academick: that I delight in those things as far as they are useful to life, but thought it too great a digression from my present purpose to stuff up a practical Book with such Philosophical Curiosities, which become it just as well, as it would become a Divine to fill a practical Discourse with School-distinctions.*

However, I resolving not to trust my self wholly with a case of this nice difficulty, did chuse a Friend to whose Judgment I did permit the whole, I mean the Learned Doctor Walter Needham *of the* Charter-house, *who, upon perusal of my Papers, was pleased to approve of my intention, and withal to alter what he thought fit in them, and alway to cut off the Theory, when it adventured upon Controversial Discourses; still urging, that this was not intended for a Book of Controversie, but of plain Institution; not to make men subtil Disputants, but good Practisers. I do confess he did gratifie my humour in it, whose inclinations lie wholly that way: But withal I made bold sometimes to please my own fansie, in not alway following his advice, or obeying the Corrections he made. His pardon I easily got for so doing, he not affecting a Tyranny in Friendship: and I hope I shall thine, (Reader,) if among many things that are here delivered, thou findest some not altogether to thy palate. Let what thou dost find acceptable to thee in this Treatise excuse the impertinence of the rest.*

Thou art farther to be informed, that the writing of so large a Volume as thou now art presented with is but a late design, to which

several of the particular Tracts, some of which were publisht four years since, others written about that time, did encourage me. One attempt drew on another, till at length it grew to the bulk thou seest. Which I do alledge in excuse of the Method of this Book; which, if it had been all written at once, might have been contrived all into a piece. But the lesser Treatises being written before the greater, I was not willing to dismember them again, or to write new Discourses on those Subjects which I had already handled fully. The young Chirurgeon will reap benefit by it, finding some of the most troublesome Diseases in Chirurgery treated of wholly under one view, which otherwise he must have found piecemeal delivered in several places. This Apologie I chiefly made for the Treatise of the King's Evil, *where many Diseases are discoursed of which other Writers handle in other places of Chirurgery. It is sufficient to say, that I think most instances of those Diseases to partake at least of that Malady, if not entirely to be that: and therefore when I wrote the particular Treatise, it was fit to handle them there; and that being done, I saw no reason for taking them out again, to supply other parts of the Book.*

After all things are considered and weighed in this and other Chirurgical Discourses that are publick, and they compared with our success in Practice, we shall soon find cause of lamenting our own weakness and inability in the carrying on of so great a work, as the recovery of Mankind out of those many Distempers to which various Misfortunes, and many repeated successions of Intemperance, and other Accidents both without and within, have betrayed us for so many ages together. When the young Chirurgeon shall find the Cure easie in the Theory, and appear so at first in the Practice too, yet suddenly deceive him with a Relapse, and not only once, but often, delude his best endeavours: when the By-standers and persons concerned shall begin to accuse him of Knavery in his proceeding, and think him to pull back a Cure, whilst he is only rolling Sisyphus *his Stone, which will tumble down whether he will or not: He will then wish, that all other Practisers had done what I have in this Treatise,* viz. *recommended their Observations, both successful and unsuccessful, thereby increasing knowledge in our Profession, and leaving Sea-marks for the discovery of such Rocks as they themselves have split upon before. For my part, I have done it faithfully, and thought it no disgrace to let the world see where I failed of success, that those that come after me may learn what to avoid: there being more of instructiveness often in an unfortunate case than in a fortunate one; and more ingenuity in confessing such misfortunes which are incident to mankind, and which have attended all*

my

my Brethren as well as my self, and will attend thee also, Reader, in spight of all thy care and diligence, if thou undertake the imployment. Thou wilt also learn one necessary piece of Humility, viz. *not to trust too much on thy own judgment, especially in difficult cases; but to think fit to seek the advice of other Physicians or Chirurgeons, whose long experience hath enabled them to assist thee in preventing the Accidents, and encourage thee to go on in the work, or forewarn thee of the danger. After thou hast thus defended thy self from the censure of Rashness, proceed boldly, and let thy sincerity in thy acting be thy warrant to hope for God's Blessing on thy endeavours: and if these Papers prove any advantage to thee in them, remember with kindness the Labours of*

May 24. 1676.

Thy Friend and Servant,

Richard Wiseman.

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A TREATISE OF TUMOURS.

A TREATISE OF TUMOURS.

OF TUMOURS.

The First Book.

CHAP. I.

Of Tumours in general.

WHat a *Tumour* is (when we understand a Disease by the word) is so sufficiently explained by *Galen*, that I shall not trouble my self with any farther disquisition about it. It is by him defined, *A Disease in which the parts of the body recede from their natural state by an undue increase of their bigness.* Definition.

Now by what Names the Ancients did express a Tumour in general, many of which were afterwards appropriated to the particular Species of it, as *Oedema*, *Apostema*, *Phyma*, &c. I shall leave to the Criticks and men of leisure to enquire: it shall suffice me, that my Definition tells you what I mean.

The *Causes* of Tumours are variously delivered by sundry Authors, with a larger repetition of which I shall not here trouble you. What my own thoughts suggest to me out of them upon this subject is this in short, *viz.* that they must be considered either with regard to their Time and Place, or to the Matter of which they consist. Cause of Tumours.

I. In regard to their Time & Place we call them, 1. Antecedent, 2. Conjunct.

1. By an *Antecedent* Cause I mean that which yet hath not actually produced a Tumour, but is throughly mixed with the Bloud, or otherwise lodged in some convenient place where it is not troublesome to nature, at least not to this Part; though it have a great inclination to be so, and, if not prevented, doth produce the feared effect. Of this sort I reckon all Impurities in the Bloud which do not yet start out into the solid parts: as the Matter of an *Erysipelas*, *Phlegmon*, *Parotis*, *Bubo*, &c. before a Crisis is made; so also any Tumour in the body, which, lying in any part of it, is apt to be translated to another. This, though it may be the conjunct cause of the Tumour of the part where it is now lodged, is the antecedent cause of that Tumour which it raiseth in another place, to which it may be after derived, &c. Antecedent.

2. By a *Conjunct* Cause I mean the very Matter of the Tumour that is already impacted into the part, by others called the *causa continens*: upon the encrease of which the Tumour encreaseth; on the diminution of it it diminisheth. Conjunct.

II. In regard of the Matter of which they are made, we do usually attribute their Original to, 1. Humour, 2. Wind, 3. the Interposition of a solid Body.

Humour: by Fluxion;

First, *Humour* produceth Tumour by, 1. Fluxion, 2. Congeſtion.

1. *Fluxion* is the ſudden motion of Humours in the body to any part, and commonly depends upon one or more of theſe following cauſes: 1. the part tranſmitting; 2. the part recipient; 3. the condition of the Humour.

(1.) The part *tranſmitting* doth cauſe ſudden Fluxion, when, being it ſelf ſtrong, it is provoked by the heat, ſharpneſs, quantity, or other fault of a Humour, and, being ſo provoked, tranſlates it to ſome weaker part, whether external, or internal. This is moſt evident in the Criſis of Fevers, from which the Humour is often diſcharged inwardly by the way of *Phlegmon* upon the inward *viſcera*; or outwardly in the form of an *Eryſipelas*, *Bubo*, *Parotis*, *Carbunculus*, &c.

(2.) The part *recipient* is the Cauſe of Tumours either, 1. paſſively, or 2. actively.

1. *Paſſively*, when it receives Humours, and cannot expel them: whether it be through its weakneſs, laxity of Pores, over-wideneſs of Veſſels, as in a *Varix*; or their too great ſtreightneſs or obſtruction, its poſition in a declining part, or its being diſabled by external accidents, as Bruiſe, Fall, *&c.*

2. *Actively*, when it attracts Humours to it ſelf: either, 1. through heat, whether created by Humours already flowed, or by hot Medicines, bliſtering Plaiſters, the Sun, Fire, Cupping-glaſſes, *&c.* or, 2. pain from corroding Medicines, wounds, bruiſes. I know this latter Head of Attraction may be quarrell'd at by ſome, who will reduce all Attraction to Pulſion, and ſo render other reaſons of theſe accidents: But that troubles not me, who handle the notion in a practical way, leaving the ſpeculation to curious men.

(3.) *The condition of the Humour* is the third and, indeed, great Cauſe from which Tumours do ariſe: in the explaining of which we muſt conſider either the Plenitude of Veſſels, or the Impurity of the Humours themſelves.

1. The *Plenitude of Veſſels*, otherwiſe called *Plethora*, when it happens, cauſeth an Extravaſation of bloud, either by ruption or Apertion of them: either of which, if they fall inwardly upon the Brain or ſome noble part, are of great danger; as in *Apoplexia*, &c.

2. *Impurity* or *Cacochymia* (to which ſome will alſo reduce *Plethora*) is a Degeneration of the Humours into a preternatural ſtate, from which Degeneration a multitude of Diſeaſes do ariſe.

by Congeſtion.

2. *Congeſtion* is then ſaid to be the Cauſe of a Tumour, when the growth of it is ſlow and without pain, it commonly owing its original to a fault of Concoction in the Part, or at leaſt a weakneſs in the expulſive faculty; ſometimes alſo to the want of heat, and the denſity of the skin, which hinders perſpiration. Theſe Tumours are generally cold, whereas thoſe made by Fluxion are moſt frequently hot. The Matter of theſe is either thin and ſerous, or thick and phlegmatick, or apt to coagulate and grow hard, as many ſcirrhous Tumours and *Exoſtoſes*; or made up of nutritious juices, as *Sarcoma*, *Hernia carnoſa*, &c.

Wind.

Secondly, As Humour, ſo *Wind* begetteth Tumours: which though it ſeldom appeareth alone, but uſually mixed with ſome Humour, which is the cauſe of it; yet getting predominancy it denominateth Tumours, and is called *Emphyſema*.

Interpoſition of a ſolid Body.

Thirdly, *The Interpoſition of a ſolid Body* is frequently the Cauſe of a Tumour; as in the *Hernia inteſtinalis*, *zerbalis*, *Exomphalos*.

Now from the variety of theſe Cauſes ariſeth a great variety of Tumours, which do receive their ſeveral denominations from them.

I ſhall not trouble you with all the ſeveral diviſions and enumerations, which, according to *Sennertus*'s Arithmetick, make 226 in all: but I ſhall briefly

briefly instance in these following Heads, to which the rest may without difficulty be reduced.

1. The Bloud it self is the matter of many Tumours; and that two several ways.

(1.) When the *serum* is so extravasated as to carry something of the red or grumous part with it into the Tumour. In which case we find the *Inflammation* or *Phlegmon*, and the consequences of that, *viz. Gangræna*, or *Sphacelus*, of which we have treated elsewhere: also *Erysipelas*, *Furunculus*, *Epinyctis*, *Tereminthus*, *Phyma*, *Phygethlon*, *Bubo*, *Parotis*, *Carbunculus*, *Paronychia*, *Pernio*, and *Pterygion*.

(2.) When the whole mass of Bloud is so driven into a Tumour, as that the *grumus* is either principally concerned, or at least equally mixed with the *serum*. Examples of this are *Varix*, *Ecchymosis*, *Aneurisma*.

2. From Choler proceedeth *Herpes*.
3. From Phlegm, *Oedema*.
4. From Melancholy, *Scirrhus*.
5. From *Atra bilis*, *Cancer*, &c.
6. From wateriſh Humours, *Hernia aquosa*, *Hydrops*, *Hydrocephalus*.
7. From salt Humours, *Scabies*, *Lepra*, &c.
8. From Wind, *Emphysema*.
9. From interposition of a solid body, *Hernia*.

I have thus cursorily given you a summary view of the chief Heads of Discourse which are usually handled by our Chirurgical Writers, as a Preparatory to what I my self have to say. And first we shall treat of Humoral Tumours in general, descending from thence to as many of the Particulars as will be necessary for the Instruction of the young Artist.

Chap. II.

Of Humoral Tumours in general.

THe *Causes* of these *Tumours* have been sufficiently handled in the First Chapter, where we have discoursed how Tumours from Humours are produced: I shall here discourse the *Diagnostick*, *Prognostick*, and *Cure*.

If a Humoral Tumour be made by any external Cause, as by a Wound, Bruise, *&c.* it is easily discerned: but if there were no such preceding Cause, you may conclude that it ariseth from within. In this latter case you may judge whether a Tumour be made by Fluxion or Congestion thus. Signs.

That which is made by *Congestion* riseth gradually, and is collected into a compact Tumour without any preceding cause or sign of Fluxion, and is made with little pain, unless it begin in the Joynts, or parts of exquisite Sense. And then also in little Children the Tumour is some times made before it is discovered, and supposed a luxation of that Joynt, the Skin retaining its natural colour: yet as the Tumour encreaseth, the veins are frequently swelled in the surface of it; and as the Matter makes its way outward, it some times inflames and becomes painful. Tumours by Congestion.

If the Tumour be made by *Fluxion*, the part is affected with pain, and swelleth suddenly, and is accompanied with Tension, Pulsation, and Fever. Tumours by Fluxion

Now when the Tumour appears either before or with the Fever, no other Diſeaſe having preceded it, this is to be called *Fluxion* in the ſtricteſt ſence of the word. But there are two other ſorts of Tumours reducible to Fluxion, and thoſe are made by, 1. Tranſlation, 2. Attraction.

Tumours by Tranſlation.

Firſt, The *Tranſlation* of an Humour, in the ſence I here mean it, is that ſort of Fluxion which happens from within upon the Criſis of ſome foregoing Diſeaſe; which though it be really Fluxion, yet it differs from that which is ſtrictly ſo called by theſe circumſtances. 1. In Tranſlation another Diſeaſe preceded; in this, none at all. 2. In Fluxion, ſtrictly ſo called, the Skin is firſt affected, and by degrees the neighbouring parts; in Tranſlation it is affected laſt, the Matter working it ſelf from within outwards, inſomuch that you may find Matter in the Tumour before the Skin is much changed. 3. In Tranſlation there is often a real Extravaſation of the *ſerum* of the bloud between the Interſtices of the Muſcles, which falleth from ſome higher place; nay, *Pus* it ſelf may be bred above in ſome inward Cavity, and fall down thither actually formed before the Tumour begins: which is quite otherwiſe in Fluxion ſtrictly ſo called.

Tumours by Attraction.

Secondly, The other ſort of Tumours reducible to Fluxion are thoſe that are made by *Attraction:* which if they do happen, ſome of the viſible Cauſes mentioned Chap. 1. did precede.

Times of Tumours made by Fluxion.

Tumours made by Fluxion have their ſeveral degrees and times, as their Beginning, Augment, State, and Declination. Their Beginning is with the extenſion of the part affected: the Increaſe, when it riſeth into a conſpicuous Tumour, and is then accompanied with Symptoms increaſing accordingly: the State is when the Tumour is made, and the Symptoms at the higheſt: the Declination is when the Tumour becomes leſs, and the Symptoms abate.

Prognoſticks.

The *Prognoſticks* of Tumours in general are taken from the Part affected, as it is of more excellence and uſe; alſo as it is internal, or external. By how much the more noble the Part is, by ſo much the more dangerous. The internal more dangerous than external. Prognoſticks are alſo taken from the greatneſs of the Tumour, and Accidents that attend it; and from the quality of the Humour that raiſeth it, whether hot or cold, thick or thin, malign or benign: for according to theſe circumſtances the Cure is more or leſs difficult.

The manner of its Termination is to be conſidered: whether by Diſcuſſion, *viz.* inſenſible Tranſpiration; or Suppuration, *i.e.* the converting the Humour (which raiſed the Tumour) into Matter; or by Corruption, when the part affected is overcome by the ill quality of the matter, and putrefies; or by Induration, when the Tumour is hardened, and the Symptoms of pain diminiſhed; or by Retraction, when the Tumour ſuddenly diſappears, going back into the Body.

All Tumours which owe their original to Humours terminate one of theſe five ways.

Signs of Diſcuſſion.

1. The Signs of *Diſcuſſion* are the Relaxation, Diminution, and eaſe of the part, without Suppuration.

Of Suppuration.

2. The Signs of *Suppuration* are Pain, Pulſation, *&c.* with Fever, according to Aphor. *Hipp. Dum Pus conficitur, dolores ac febres accidunt.* But the Matter being made, thoſe Accidents ceaſe, and the Tumour riſeth in a Cone, and appears whitiſh: alſo the Matter fluctuates under your fingers. Yet it frequently happens in crude Tumours, and thoſe that lie deep amongſt the Muſcles, that Matter is not ſo eaſily diſcover'd.

Of Corruption.

3. The Signs of *Corruption* are a livid or blackiſh colour of the part affected, together with a ſinking of the Tumour.

4. The

4. The Signs of *Induration* are, Diminution of the Tumour and Pain, with increaſe of Hardneſs. Of Induration.

5. The Sign of its *Retraction* is, a ſudden diſappearing of the Tumour without Diſcuſſion or Suppuration: which, if it be from an inward cauſe, is always evil, and there ariſeth Fever, (if there were none before) together with grievous Symptoms from the return of the Matter. Of Retraction.

In the *Cure* of Tumours two things are chiefly to be conſidered: 1. the nature of the Part; 2. the nature of the Tumour. Cure.

I. In the *Part* it ſelf we are to conſider, 1. its Temperament, 2. its Conformation, 3. Situation, 4. Senſe, 5. Uſe. Things to be conſidered in the Part.

1. In *Temperament*, ſome are hot, as the Muſcles; ſome cold, as the Tendons, Glandules, and other exanguous parts. Some are moderately moiſt in themſelves, and require to be treated with Medicines of the like nature, ſuch as are neither violently drying, nor too much moiſtening, as the Fleſhy parts: others dry in themſelves, yet require exiccants; as Bones: others again over whelmed with perpetual Moiſture, by reaſon of their ſituation and ſpongy ſubſtance; as the parts about the *Anus*, *Uterus*, *Axillæ*, *Inguina*, &c.

2. *Conformation* of the Part regards either its outward Figure, or inward Compoſition: which latter may conſiſt of ſeveral other leſſer, whether ſimilar or organical; as a Thigh, of Bone, Muſcles, Veins, Arteries, Nerves, Membranes, *&c.* all which are duly to be conſidered, that ſo the nature of the Fluxion, the Veſſels that feed it, the diſadvantages or advantages of the Part, the beſt way of Revulſion, Diſcuſſion, *&c.* may be the more readily ſuggeſted to the fancy. We may alſo thereby be informed what Cavities or Interſtices may be there for the receit of Humour; and how great the degeneration is from the natural ſtate or figure.

3. *Situation* of the Part is of great importance: which, if it depend too much, muſt of neceſſity be raiſed; otherwiſe the Fluxion will be increaſed. Therefore if it be a Hand or Arm, it muſt be raiſed to the Breaſt; if a Leg, it muſt be laid on a Bed, Stool, or the like.

4. The *Senſibleneſs* of Parts is of much moment in the Cure of Tumours: which, if they light upon ſuch as are of over-acute ſenſe, produce exquiſite torments, ſuch as require often a more peculiar care of the Chirurgeon than the Tumour it ſelf. Alſo its neighbourhood to ſuch a place obligeth us to prevent its reaching to it.

5. The *Uſe* of a Part, as it is more or leſs noble, is very much to be attended: whether it be of immediate importance to Life, as the Liver, Brain, Lungs, Heart, *&c.* or to great and noble uſes; whether of ſenſe, as the Eye, Noſe, Ear; or of common excretion, as the Bladder, *Anus*; or of generation, as the Teſticles, *Uterus*, *&c.* Of all which Circumſtances great care is to be had, that they may be treated accordingly.

II. Having thus conſidered the nature of the Part, you are next to attend to the Tumour it ſelf, both as to its Time and other circumſtances. As to its Time, if it be already in the State, you have no more to do but to regard the conjunct cauſe, *viz.* the Matter already lodged there; the due removal of which ſufficiently diſpoſeth it to Cure: but if it be only beginning, then the antecedent cauſes are to be likewiſe conſidered, and to be removed out of hand; the Fluxion to be checked by evacuation of the Humour, by bleeding and purging, or by revulſion, derivation, interception, repulſion, diſcuſſion, *&c.* Things to be conſidered in the Tumour.

Theſe ſeveral intentions will beſt be judged of by viewing the quality of the Tumour. If it be hot, and made by Fluxion, then it is to be treated by the aforeſaid Method. If it be cold, and made by Congeſtion, then purging only with reſolvents, diſcutients, and ſtrengtheners of the Part, are to be made uſe of.

of. Where the Tumours are mixed, the intentions of Cure ought to be so too. Where Attraction is the cause of Tumour, the cause of the Attraction ought to be removed; whether it be too much heat, drawing Medicines, blistering Plaisters, or the like. All which things as they will be sufficiently handled in the Particulars when we come to them; so it will be much for the advantage of the young Artist, if we do here say something of them in general.

Now since Tumours caused by Fluxion are like to employ the former part of this Treatise, I shall begin with those, and consider them in their several estates, of Beginning, Increase, State, and Declination.

Bleeding. In the Beginning I have already told you of Bleeding, which potently checketh Fluxion, and ought to be proportioned to the greatness and violence of the Disease. In tender bodies and small Tumours the evacuation needs not be much: but if otherwise the Fluxion be great, and the body strong, we must take away large quantities.

Purging. Besides Bleeding, evacuation by Stool will be requisite: and, indeed, immediately before or after bleeding a Clyster or some other Lenitive ought to be exhibited. Nor is that to be rested in, but further purging, either by milder or stronger medicines, to be attempted, suitably to the condition of the Patient. It is true that in hot Tumours there may seem to be only a *Plethora*, which notwithstanding will require evacuation by purging as well as bleeding; it being seldom found that a Tumour is caused by a meer *Plethora* without *Cacochymia*; which *Cacochymia*, if it doth not precede the Tumour, certainly accompanieth it, (as will be made more manifest when we come to treat of particular Heads) and therefore requires the method now mentioned.

Lenitive Purges are *Sena, Rhubarb, Cassia, Tamarinds, Manna*, with *Cremor Tartar, Electuar. lenitiv. Diaprun. lenitiv. Diacass. cum manna, syr. rosar. solut. syr. de Rhabarb.* &c. which is as high as we ought to go, if the Humour be hot. In cold ones stronger Catharticks are advisable: of which more anon.

These two are premised in regard of the antecedent cause: but that is not enough, unless the conjunct cause be also removed; which, being the very matter of the Tumour, admits of several intentions. They are reducible to these two Heads.

1. Translation to some other Part in the body: which is performed by, 1. Revulsion, 2. Derivation, 3. Repulsion.

2. Evacuation out of it: and that is obtained by, 1. Discussion, 2. Suppuration, 3. the Discharge of the matter by Apertion.

Revulsion. *Translation*, and, 1. by *Revulsion*, is chiefly intended for the defence of some noble Part which is endangered by the Tumour, or else for the lessening of the Matter when it is excessive. This intention regards as well the antecedent cause as the conjunct. The antecedent, when by Venæsection, Cupping-glasses, Leeches, *&c.* the whole mass of Humours is diminished: of which already. The conjunct, when the Tumour it self is lessened, or quite taken off, by translating it either into the mass of Bloud, or into some other remote Part.

The former of which is often very innocently done in the beginning of a Tumour, whilst the *serum* is yet only extravasated, and not otherwise altered in its quality; so that being remixed with the mass, it is capable of Concoction, and consistent with the health of the Patient. The latter is, when by Cupping, Blistering, Ligatures, Frictions, or the like, we raise a Tumour in the contrary part, and give Nature occasion of discharging the Matter in a place far distant, which otherwise she would have lodged here: in doing of which she often sucketh in the Humour again which she had before separated into the former place.

2. *Derivation*

2. *Derivation* differs from Revulsion only in the measure of the distance, and the force of the Medicines used. If we draw it to some very remote, or, it may be, contrary part, we call that *Revulsion:* if only to some neighbouring place, and by gentle means, we call it *Derivation.* Derivation.

3. To the making of either of these effectual, *Repulsion* is also necessary. For Humour that is already impacted will not so easily be drawn out by former remedies, if something be not applied to the Part to drive it back. Repulsion.

These Medicines are all astringent more or less. The milder sort of them, which are the most usual in all hot Inflammations, as Lettice, Purslane, Navel-wort, Plantane, Bramble-tops, red Roses, Knot-grass, Horse-tail, House-leek, and, where the pain is more vehement, Poppy, Mandrakes; these may be applied liquid, or in the forms of Liniments, Cerots, Cataplasms, or Emplasters: of which this Book will give you Examples. The more astringent are Pomgranate rinds and flowers, Medlars, Quinces, Sloes, Acorns, Cypress-nuts, Mulberries, Sumach, Bole-armoniack, *sanguis draconis*, Vinegar, red Wine, *&c.* Compounds of both sorts are, *Ol. omphacin. ol. rosar. unguent. rosar. popul. album, unguent. nutrit. cerat. refrigerans Galeni. Empl. è bolo, de minio camphorat. oxycratum, oxyrrhodinum, oxelæum.* ℞ *succi solani, plantag. sempervivi, an.* ℥ij. *aceti optimi* ℥j ℈ *mucilag. sem. psyllii, cydon, extract. cum aq. rosar. an.* ℥j. *Misc.* in which you may dip cloaths, and apply them to the Parts affected, renewing them often; or you may add to it *pulv. gland. flor. ros. rub. balaust. an.* ʒij. *Bol. armen.* ʒiij. *olei myrtillor. unguent. rosati, an. q. s. fiat mixtura.* Apply it in the form of an Emplaster over and about the diseased Part.

Concerning these foregoing Medicaments it is to be cautiously observed, 1. That they are proper only in the beginning of the Tumour, whilst you intend to prevent it by driving it quite back into the Bloud again. For if the Humour be so impacted as not to be repellible, but that it must have its evacuation in the place by Suppuration, then if by bleeding you hinder concoction of the Matter, you prolong the Disease; Nature in that case wants all its heat and all its *serum.* Much more do you hurt it if you use Repellents, which, being commonly cold and astringent, do close up the Pores, and keep out both the natural heat and the *serum* of the bloud, the affluence of which and its mixing with the Humour is necessary to the dilution and the digestion of it; so that both being hindred, the Part will grow livid and mortifie. Cautions.

2. Caution is to be used in the application of these Medicines where the Tumour is malign, or the Crisis of a malignant Fever: for in all such cases the Retraction into the bloud is of very dangerous consequence: wherefore we then rather use Cupping-glasses and other Attractions to draw it out.

3. It is to be noted that these Repellents are often applied above the Tumour, as defensatives or intercipients: in which case they have regard to the antecedent cause, and in a strict discourse should have been handled under that Head; but I rather accommodate my self to the method of Operation.

Evacuation is necessary for the discharge of that Matter out of the body by some more immediate way, which either cannot, or ought not, by the former intentions be driven back. Now that is of three sorts.

1. Insensible, by *Discussion* or Resolution; which is nothing else but a breathing out the Humour by insensible transpiration. Therefore the Humour so to be discharged ought to be thin, and the skin lax and rare: for if it be otherwise, or lie deep amongst the Muscles, it will not easily yield to Transpiration. The Medicaments called Discutients ought to be hot and of a subtil quality, powerfully penetrating: which quality renders them improper to be applied Discussion.

plied in the beginning of Inflammations; (for thereby the Part would be too much heated, and consequently the Tumour made great;) but they are proper being mixed with Repellents in the beginning of the Augment, when the Tumour is hard, and not fit to be treated longer with Repellents alone.

Discutients and Emollients.

These Medicaments are to be proportioned as the Matter and conformation of the Part requireth. The milder are emollient and rarifying, proper in soft bodies where there is Inflammation with hardness: and they are *Radices & folia althææ, malvæ, violar. sem. lini, fænug. flor. chamæmel. meliloti, sambuci, far hordei, lentium, orobi, lupinor.* which may be made up in Cataplasms with some of these following, which are of the same quality, *viz.* sallet oyl, butter, *axung. porcin. anseris, anatis, gallinæ, sevum ovinum, vitulinum, vaccinum.* The more recent these Fats are, the more emollient; and the more rancid, the more discutient. *Mel* and *cera* are reckoned amongst the Discutients: also *ol. cham. lumbricorum, sambuci, lini, irinum,* &c. *Empl. diachyl. simpl. cum gummi, ireatum, de mucilag. de meliloto,* &c. The milder Discutients mixed with Repellents may be thus made: ℞ *fol. & rad. althææ* M. j. *flor. cham.* M ß. *flor. ros. rub. nymphææ, an.* P. j. *sem. cydonior.* ℥j. *far. fabar. orobi, an.* ℥iij ß. *coq. in sero lactis, & fiat cataplasma S. A. addendo in fine coctionis ol. ros. & cham. an. q. s.* Or, ℞ *fol. malvar. parietariæ, plantag. an.* M. j. *sem. lini, fænug. an.* ℥j. *summitat. absinthii, florum sambuci, an.* Mß. *flor. ros. rub.* M j. *coq. in s. q. vin. tenuis; addendo farinæ hordei* ℥iiij. *& ol. olivar. immatur. q. s. fiat Catapl. S. A.* As the Humour discusseth, you may foment it with a Decoction of *summitat. absinth. flor. cham. ros. rub. balaust. bacc. myrtil.* or the like, in wine and water, by which you may dry up the remaining Matter, and strengthen the relaxed Part.

In Tumours where the Matter lieth deeper, ℞ *rad. althææ, ebuli, irid. recent. an.* ℥ij. *rad. bryoniæ, cucum. agrest. an.* ℥j ß. *flor. cham. meliloti, summitat. anethi, an.* M. j. *sem. lini, fænug. an.* ℥j. *fiat catapl. S. A. addendo axung. anseris, anatis, an.* ℥j. *mell. com.* ℥ij.

These following are yet more attenuating, and proper in crude Tumours: *summitates origani, thymi, calaminth. pulegii, roris marini, hyperici, centaur. min. bacc. lauri, juniperi, sem. cymini, rutæ,* &c. *Gumm. galbanum, ammoniac. bdellium, opopanax*; also *sulphur viv. alumen. calx lota, sal nitri, cineres ligni quercini, sarmentor. vitis, brassicæ.* The compounds are, *ol. scorpion. nardin. euphorbium, petroleum, oleum philosophor. unguent. aregon, martiat. Empl. de ranis cum & sine Mercurio, Empl. diasulphuris, de baccis lauri, cicutæ cum ammoniaco,* &c. The Matter may also be disposed for resolution by such like Fomentation: ℞ *rad. enulæ campanæ, bryoniæ, an.* ℥ij. *summitat. pulegii, origani, scabiosæ, abrotoni, an.* M j. *bacc. lauri, juniperi, an.* ℥j. *sem. cymini,* ℥ß. *coq. in aqu. font. & vin. alb. an.* l. b. ij. *colat. adde aceti vin.* ℥ij. *salis nitri* ℥j. *Misce.* ℞ *salis nitri, ciner. sarmentor. an.* ℥j. *ol. vet.* ℥vj. *ceræ* ℥iij. *terebinth. claræ* ℥j. *fiat Cerat.* If the Matter be so gross and viscid as it yields not to the Remedies above prescribed, it may be reasonable to attempt it by Suffumigation with vinegar sprinkled upon the *lap. pyritis*, which sometime disposeth them well to Discussion. But in the use of these stronger Discutients you are to be careful, that whilst you endeavour Resolution, you do not breath out the thin Humour, and fix the more gross, and so render the Part scirrhous.

Caution.

Suppuration.

2. If after the use of the milder Discutients proposed in hot Tumours the Symptoms of pain and inflammation do not lessen, you shall then forbear the farther use of Discutients, and hasten Concoction or *Suppuration*; which is indeed the work of Nature, by the benefit of whose heat the Humours are digested, and *pus* generated. If the heat be strong, the Matter is for the most part well concocted; and being so, it is white and of good consistence, and

not

not ill ſented: but if the heat be weak, the Matter is otherwiſe. It is therefore our work to cheriſh and increaſe the native heat in the affected Part, to perfect its Concoction: and that is furthered by hindering Tranſpiration, and defending it from outward air; alſo by proportioning the quality of the Medicaments to the temper of the Part, and quality of the Tumour. And foraſmuch as our natural heat is temperate and moiſt, ſuch alſo ought the Medicaments to be: they ought alſo to be emplaſtick. Yet it is not unfrequent to ſee a Suppuration made accidentally by cold Medicaments, which by a light, gentle aſtriction of the Pores do perform the office of Emplaſticks; as *Unguentum album*, Sorrel roaſted in embers. Nay, in cold Tumours I have ſeen Suppuration cauſed by the ſtronger Diſcutients.

Tumours do ſuppurate ſooner or later according to the Humour of which, or the Place in which they are generated. Thoſe which are of Bloud, and in Fleſhy parts, do eaſieſt come to maturity. Thoſe which ariſe from other Humours, and are near or in the Joynts, or Parts endued with little heat, (eſpecially thoſe contained in a *Cyſtis*) do difficultly ſuppurate.

The Matter differeth according to the variety and mixture of the Humours. Of Bloud always proceeds laudable Matter, eſpecially if the native heat be ſtrong: but if other Humours be mixed with it, as they get predominancy, ſo is the Matter more or leſs crude. In Furuncles or Boils it is clammy, and not unlike pith.

In Abſceſſes made by Tranſlation the Matter is purulent, ſometimes white and well-coloured, other times partaking of a yellow or green, ſometimes of a brown colour; and is more or leſs fœtid according to the time it hath there remained.

Tumours made by Tranſlation have ſometimes Matter in them from their firſt appearance: but it being commonly lodged deep under the Muſcles, the Matter is not felt till it hath raiſed the Tumour; which is not done without pain, pulſation, *&c.* as in a *Phlegmon*, but deeper, and doth not affect the skin with Inflammation till the Matter reach near it. In theſe Tumours we do not attend the Symptoms of Suppuration, but open them as ſoon as any quantity of Matter offers it ſelf. Whilſt the Matter is making, the native heat of the Part is to be preſerved and increaſed by Medicaments which may alleviate the pain, and further concoction.

Suppuratives are of two ſorts: ſome are ſimple, others are compound. The ſimple are *Aqua tepida*, with which if you foment the leſſer *Phlegmons*, it will ſuppurate, (and ſometimes by continuing its uſe it will diſcuſs them, where the Matter is not fit for Suppuration.) *Hydrelæum* moderately heats and digeſts. *Oleum maturum* cheriſheth the native heat, and ſupples and concocts Matter. Butter is maturative, and is profitably mixed with Anodynes and Suppuratives, eſpecially in ſoft delicate bodies. *Oeſypum* is alſo maturative; and ſo are the Fats of all domeſtick Creatures. *Fol. malvæ, viol. parietariæ, mercurialis, brancæ urſinæ*, decocted in *dydrelæo cum farina tritici, butyro, & vitellis ovorum*, are Suppuratives. A raw Onion is ſharp and biting; but roaſted under embers loſeth its acrimony, and ſuppurates Tumours that are difficult to digeſt. The Lilly-root is a known Suppurative. Out of theſe Simples Cataplaſms are made: as, ℞ *radic. althææ, lilior. albor. an.* ℥ij. *fol. tuſſilag. malvæ, biſmalvæ, an.* M. j. *coq. in brodio, terantur, adjectis far. ſem. lini* ℥j. *far. tritici* ℥ij. *axung. porcinæ, butyri rec. an.* ℥iß. *croci pulv.* ʒij. *vitello ovi unius*; *Miſc. fiat Cataplaſma.* In cold Tumours, or where the Matter lies deep, ℞ *radic. bryoniæ, Lapathi acuti, an.* ℥ij. *coq. & cribrentur per ſetaceum, addendo cappar. & allior. ſub cineribus coctorum an.* ℥iij. *fermenti acris* ℥ij. *pulv. ſem. lini & fœnug. an.* ℥j. *tritici* ℥ij. *axung. porcinæ* ℥ij. *mell. com.*

Suppurative Medicaments of two ſorts.

axung. anseris ℥j. *croc. pulv.* 3j. *Misc.* Where the Matter is tough, *gum. galban. ammoniac. bdell. Empl. de mucilaginibus*, &c. The Tumour being suppurated, be the Matter what it will, the evacuation of it is necessary, lest it corrupt within, and corrode the Veins, Arteries, Nerves, Tendons, or the Bone, if it lie near one: in which cases it is lawful to open it before the Tumour is all suppurated. So also in the Joynts, and in the Head, if the Abscess lie over the Sutures: likewise in Abscesses in *ano*, where, through the weakness of the Part, a putrefaction is apt to follow; or in the *fauces*, where the neighbouring parts may suffer by consent, and the Patient be in hazard of strangling. In these cases we wait not for perfect Suppuration, but by deep Scarification discharge the serous bloud, and prevent an Abscess. There is also care to be taken in Abscesses of the Breast and Belly, where the Matter is in danger of breaking inwards. Yet by opening these too soon they sometimes apostemate again, or become crude, and difficult to digest and cure.

Two ways of Opening.

3. The way of *Opening* them is twofold; by Knife, or Caustick.

Incision.

They are of use according to the place that is affected, and the quantity of Matter which is to be discharged. In the Face, where the *Cicatrix* may be unseemly, *Incision* of them is best: but in large Abscesses, where the quantity of Matter is great, or where we would keep the Abscess long open, or in a place where Bandage cannot be made to retain the Tent in, there a *Caustick* is most proper. Authors do not generally approve so well of the Caustick; yet *Sennertus* proposeth it in a *Hernia aquosa*, where it is least safe: for in truth those cold Tumours do especially require to be opened by Incision; yet when the habit of body hath been tolerable, I have in that also used the Caustick with good success, as I shall shew in the Cure thereof, and do commend it in the opening of large Abscesses as most safe and easie, the Matter being thereby discharged plentifully. And if the Caustick be applied in the declining part, the Abscess is sometimes near cured before the Escar separates, (if the Matter be not contained in some peculiar *Cystis*) and that without dilatation or Tents.

Caution.

Yet you ought to be wary how you make Fontanels with them in hydropick or very fat people, by reason of the weakness of their natural heat.

Caustick.

Of *Causticks* there are various sorts; as of the *lixivium saponis, cinerum sarment. vitis, siliquarum fabar.* &c. boil'd to a solid consistence: or in the boiling you may add to them *vitriolum Roman. pulver.* from 3j. to 3ij. also *opium* ℈ij. to ℥vj. of the *lixivium*: or by a mixture of *calx viva & lixiv. saponis* you may make a Caustick. These are the stronger sorts in use amongst us: not but that there are Causticks made with Arsenick, *&c.* but, unless it be in great *Sarcomata* or such like, I use only a mild preparation of *calx viva* with a little common soap, and a third part of the Caustick-stone. In children and tender soft bodies I often use *calx viva* made into paste with a little black soap. In these two latter there is no fear of their spreading; a Pledgit of dry Lint and an Emplast. *diachalciteos*, or the like, is sufficient defence, leaving them on till the next morning.

Caution.

But in the application of the stronger Caustick there is more caution required. Those we endeavour to keep within compass by small snips of Emplast. hoping thereby to defend the parts about: but, in spite of all our endeavours, they will spread farther than was designed, if they lie any while on the Part out of our sight. For though the Part be outwardly defended with Emplasters, they will find a way under the skin, or at least under the *cuticula*, to spread, according to the quantity of the liquid salt in the Caustick. They do your work in less than an hour.

The Escar being made, you may divide it, and stupe the part affected with wine or milk, and dress it up with *unguent. basilicon* dipt in *ol. lilior.* warm, applying

applying an *Empl. diachalc. ſimpl.* diſſolved in ſome of the ſame oyl to the conſiſtence of a Cerat: or apply an anodyne Cataplaſm, and bind it up.

In the opening an Apoſtem by Inciſion, you ought to take care that the Apertion be made in that place where the Matter is moſt contained, the skin being for the moſt part thinneſt there: and if it be not the moſt declining part, yet you may draw your knife towards it, for the more eaſie diſcharge of the Matter, then that the Inciſion be made according to the rectitude of the Fibres. If it be in the Groin or Arm-pit, it ought to be oblique: in other parts make it according to the length of the member.

In making the Inciſion you are to avoid wounding the Vein, Artery, or Nerve: nor muſt you diſcharge the Matter at once, eſpecially in great Abſceſſes, leſt you over-weaken the heat of the Part, or cauſe fainting.

The Inſtruments proper in opening Apoſtemations are made choice of according to the Part that is affected, and the greatneſs of the Abſceſs. *Ambr. Parey* propoſeth ſome whereby you may more covertly open them: but we make uſe of Lancet or Knife, of which our Inſtrument-makers furniſh us with choice. If the *Fauces* be affected, the Handle of your Knife ought to be long, and the Blade ſhort; ſome thereof crooked, and cutting on one or both ſides. Your Inſtruments ought to be kept clean, for your credit; and ſharp, that you may perform the work with leſs pain.

The Inciſion being made, the Accidents or Symptoms that attend it are to be removed. In the firſt place the Bleeding is to be reſtrained, if any ſuch happen, (which is very rare) with *pulv. Galeni ex thure & aloe* mixed *cum albumine ove.* How you ſhall dreſs it if opened by Cauſtick, I have already ſhewed you.

Fainting, which ſometimes happeneth through weakneſs or timorouſneſs in the Patient, may be relieved by laying the Patient upon his back, and ſprinkling a little cold water on his face. But if the Fainting proceeded from ſome preceding ſickneſs, and is continued by the greatneſs of the evacuation and noiſom corrupt Matter, you ſhall in ſuch caſes provide ſome cordial Juleps or Electuaries, of which he may take at pleaſure. As, ℞ *ſpec. diamarg. frig.* ℥ß. *confect. alcherm.* ℈j. *ſyr. è ſucco citr. Rhœad. an.* ℥iij. *aq. meliſſæ, bugloſſæ, cinnam. hordeat. an.* ℥iß. *Miſc.* Or, ℞ *confect. de hyacintho* ℥ß. *ſyr. garyophyll. rubi Idæi, an.* ℥iij. *aq. dracontii, card. benedict. Stephani, an.* ℥iß. Or, ℞ *conſ. borrag. meliſſæ, cort. citr. condit. roſ. rub. an.* ℥j. *rad. eryng. conditæ, nucis moſcat. conditæ, an.* ℥iß. *ſpec. aromat. roſat.* ℥ij. *confect. alcherm.* ℥iij. *ol. cinnam. gut.* iv. *cum ſyrupo de cort. citr. q.ſ. fiat Electuarium.* Of which the Patient may take a morſel any hour in the day. Mithridate and *theriaca Veneta* are proper in ſuch caſes alone, or mixed with *conſ. lujulæ*, or any of the forementioned Syrups or Conſerves. Fainting.

The ſpirits may alſo be refreſhed with *Epithemata* made up of ſome of the aforeſaid diſtill'd Waters and cordial Species with *acet. roſ.* &c. which for want of a Phyſician you may preſcribe.

You are in the next place to conſider the Abſceſs, whether after the evacuation of Matter there remain any conſiderable hardneſs, either by reaſon that the Tumour was not enough ſuppurated, as in large Abſceſſes it frequently happens; or that it be affected with pain and inflammation. Therefore at your next dreſſing it may be reaſonable that you have a Fomentation ready of *ſummitat. malvæ, biſmalvæ, flor. cham. ſummitat. abſinth.* out of which a Stupe may be wrung, and applied over the Abſceſs, to give a breathing to it, and you leiſure to conſider how to dreſs it. Fomentation.

If it was opened by Inciſion, it requires Digeſtion; to which purpoſe this may be proper: ℞ *terebinth.* ℥j. *far. tritici* ℥ij. *croci pulv.* ℈j. *vitell. ovi q.ſ.* Digeſtion.

Miſce. But if the lips of the Ulcer be painful, a little of the Yolk of a new-laid Egg with *ol. roſ.* upon a proportionable Tent may be ſufficient, and an *Empl.* of *diachyl. ſimpl.* with a mixture of *unguent. dialthææ* applied in the form of a Cerat: or, in caſe of pain and hardneſs, this; ℞ *mucil. ſem. lini, fœnug. althææ extract. in decoct. hordei* ʒij. *olei lilior. æſyp. amygd. dulc. an.* ʒjß. *terebinth.* ʒj. *ceræ* ʒvj. *aut q. ſ. fiat Ceratum.* Then with compreſſe and Bandage rowl it moderately, and after it is digeſted you may deterge, as ſhall be preſently ſhewed.

Fomentation. In Tumours by Congeſtion foment with *decoct. abſinth. flor. ſambuci roſ. rub. baccar. myrtill. ſem. fœnug.* in wine and water, adding afterward ſome *ſp. vini.* Theſe Abſceſſes requiring to have their heat kept up, and the relaxed parts ſtrengthned. If the Opening was made by Cauſtick, dreſs it with a Pledgit dipt in a mixture of *unguent. baſil.* with *ol. lilior.* hot: or, to rouſe up the heat in the Part, and haſten ſeparation of the Eſcar, adde a few drops of *ol. terebinth.* and apply *Empl. diachyl. ireat.* or *Empl. de minio cum ſapone,* malaxed with *ol. lini.* After ſeparation of the Eſcar, you may deterge with *mundif. Paracelſi* thus made: ℞ *terebinth. claræ, mellis deſpumati, an.* ℔ß. *vitel. ovor. num.* iij. *coq. ad conſiſt. unguenti.* If there be required ſtronger Deterſion, you may add *Merc. præcip.* ʒj. to an ounce; you may alſo add *alumen uſt.* but that will make the Ulcer painful: however ſome crude Ulcers may admit of it. *Mundif. ex apio* is alſo proper, as it is in the *Pharmacopœia Lond.* or this: ℞ *ſucc. abſinth.* ʒij. *ſucc. braſſicæ, chelidon. an.* ʒj. *mellis roſati colati* ʒij. *terebinth.* ʒiij. *coq. ad ſuccorum conſumptionem, addendo pulv. myrrhæ, ſarcocollæ, an.* ʒjß. *pulv. rad. ireos* ʒj. *rad. ariſtoloch. rot. pulv.* ʒij. *far. tritici* ʒiij. *far. orobi, lupin. an.* ʒj. *Miſce.* If the Matter do not well diſcharge, you muſt help it by compreſſion and Bandage: or if the Tumour was large, and the Opening but ſmall or not enough in the declining part, lay it more open; for without a convenient Orifice, whereby the Matter may plentifully diſcharge between Dreſſings, you cannot hope for a ſpeedy Cure. That way of dilating by Piths or Sponges is meer trifling, unleſs it be to thin the skin for the more eaſie Inciſion.

Mundif. Paracelſ.

Mundif. Apii.

Unguentum incarnativum. If you deterge not with too ſharp Medicaments, they may alſo ſerve to incarn: or you may uſe this, or ſuch like; ℞ *terebinth. Venet.* ʒiiij. *pulv. ariſtoloch. rot. ireos, thuris, an.* ʒiij. *maſtich. myrrhæ, aloes, an.* ʒß. *cadmiæ* ʒvj. *mell. roſ. q. ſ. fiat Unguentum.* Or, ℞ *ſucc. Nicotianæ* ℔j. *picis, reſinæ, ol. olivar. immatur. an.* ʒiij. *terebinth. Venet.* ʒvj. *ceræ q. ſ. fiat Unguentum.* If the fleſh grow looſe or ſpongy, touch it with a Vitriol or Alume-ſtone moderately, and it will daily waſte it, with little or no pain, and diſpoſe the Ulcer to cicatrize: of which Stones you may have ſome fitted in Quills for your uſe.

Unguentum Nicotianæ.

Unguentum lithargyri. The Ulcer being incarned, you may cicatrize with *unguent. lithargyri:* ℞ *lithargyr. aur. & argent. an.* ʒiijß. *calcis decies lotæ ſubtiliſ. pulverizatæ* ʒij *ceruſſæ* ʒij. *tutiæ* ʒvj. *olei myrtillor.* ʒvj. *ol. roſati* ℔jß. *ſevi vitulini* ʒviij. *ſuccor. plantag. lactucæ, ſolani, an.* ʒiv. *coq. ſevum lento igne cum oleis & ſuccis uſque ad conſumptionem ſuccor. deinde colentur; colaturæ addantur unguenti roſati* ʒij. *ceræ albæ q. ſ. iterum coq. unicâ ebullitione; poſtea auferatur ab igne, baculo agitando, cum mineralibus prædictis priùs optimè pulverizatis, & fiat Unguentum.* Or with *unguent. deſiccat. rub. aq. calcis.* Or elſe you may cicatrize with this Water; ℞ *myrobalan. citr. balauſt. an.* ʒij. *alum. rup.* ʒß. *aq. germin. querc. equiſeti, an.* ʒij. *vini albi* ʒj. *bulliant parùm, & colentur pro uſu:* in which Pledgits may be dipped and preſſed out. You muſt take care that the Ulcer be cicatrized ſeemly, neither too high nor too low.

Aqua cicatrizans.

Having thus treated of Tumours by Fluxion, we ſhall now ſay ſomething of thoſe made by Congeſtion; which, though capable of moſt of the former

mer intentions more or leſs, yet differ in the manner of governing them, *viz.*

Bleeding ought in this caſe to be leſs frequent; but Purging more ſtrong, with *agarick, hermodactyles, ſcammony, jalap. aloes, colocynth. pil. rudii, cochiæ, Cornachini, benedict. laxat. confect. hamech. elect. è ſucco roſarum,* purging Diet drinks, *&c.* as in the Chapter of *Oedema*, to which I refer you. The Revulſion hath little or no place here.

Derivation by Iſſues and Setons are uſual. Repulſion is proper in many of them, eſpecially that of Bandage in œdematous Swellings of the Legs, Arms and Hands.

But Diſcuſſion is the principal intention of the Chirurgeon in this place, and ought to be done with hot Medicines: of which ſort I have ſet you down ſome already, and more you will meet with in our particular Diſcourſe of thoſe Tumours.

Suppuration ſeldom happeneth in theſe Tumours, unleſs there be an admixture of bloud with it: in which caſe treat them with Suppuratives, as hath been ſaid, and open them.

After Apertion, the method of healing differs little from that of Abſceſſes made by Fluxion: but of their Cure you ſhall be more informed in the Chapter of *Oedema.*

The next thing that offers it ſelf to our conſideration is *Diet:* and that is Diet.
of two ſorts; the one regarding Tumours made by Fluxion, the other thoſe by Congeſtion.

In hot Tumours made by Fluxion we are to propoſe ſuch moderation as may take off from the great ferment in the Bloud, whereby it may be rendred leſs apt to flow into the weak Part. To which purpoſe the Ancients preſcribed ſuch a ſlender Diet as might only ſupport their Strength: yet with a regard to Cuſtom, the Age and Conſtitution of the Patient, and greatneſs of the Inflammation. If the body be ſtrong and abound with Humours, and the Inflammation great, their Diet may be the more ſparing and cooling; as Water-grewel, Panado, and ſuch like. Where the Inflammation is leſs, or the Patient weak, Chicken-broath, with Wood-ſorrel, Lettice, Purſelane, or a boil'd Chicken, a potched Egg, *&c.* and ſuch like meats of eaſie digeſtion. To others, Mutton, Veal, Pullet, Rabbit, and ſome ſorts of the firmeſt Fiſh. In great Inflammations there is commonly Fever attending, in which caſe they have little inclination to eat. Their Drink ſhould be Ptiſans, or a ſmall well-boil'd Ale. If Wine be allowed, it ought to be ſmall, or allay'd with water. *Falopius*, in his Diſcourſe of hot Tumours, ſaith, he was wont where there was *Plethora*, to preſcribe *panem lotum in aqua, aſperſo ſucco aurantiorum cum modico zuccari*, a little Bread dipt in water, and ſprinkled with juyce of an Orange and Sugar, and that but twice the day; and their Drink no better than water. *Galen* forbids Wine; yet permits it to them *qui habent ventriculum debilem*, for their Stomach's ſake: which is neceſſary to be obſerved; for unleſs that be kept up, in vain are all our endeavours.

The Air ought to be temperate by art or nature.

All exerciſe is to be forborn: for the Bloud is thereby heated, and the Humours made more fluid. Sleeping in the day is alſo forbidden, out of hopes they may reſt better in the night.

In Tumours by Congeſtion we allow ſuch a Diet as is heating and attenuating; their Meat rather roaſted than boiled, and of good nouriſhment; as Mutton, Veal, Kid, Pullet, Rabbit, Chicken, Pheaſant, Partridge, Cock, Snipe, *&c.* All White-meats, Fiſh, Fruits, Sallets, are forbidden. Their Drink may be Ale or Beer: Wine is alſo allowed in theſe caſes: and their Drink

may

may be medicated with *Sarſaparilla, China, lign. guaiaci, lentiſcinum*; as you may ſee more particularly hereafter.

The Air ought to be warm and attenuating. Sleep in the day is abſolutely forbidden, and ought to be moderated in the night. Paſſions of the mind are to be avoided both in this and all other Diſeaſes.

Chap. III.

Of Inflammation, or Phlegmon.

HItherto I have diſcourſed of Tumours in general. I ſhall now deſcend to particulars, and begin with *Phlegmon*, or *Inflammation*: both becauſe it is the firſt degeneration from good bloud, and in its own nature neareſt of kin to it; and alſo becauſe it is the moſt frequent of Tumours happening in Diſeaſes, Wounds, Contuſions, Fractures, Luxations, *&c.* It being alſo the uſual forerunner of many miſchiefs that happen in many of thoſe caſes, and conſequently the moſt obvious occaſion of exerciſing the Chirurgeon's Skill.

Definition. I define it, a large Tumour, hot, of a red colour, with pain, pulſation, tenſion, and a circumſcribed hardneſs.

Differences. The *Differences* of it are either from the Situation; inward, or outward. Or from the Part affected, whence it taketh a name. As inwardly in the Lungs it is called *Peripneumonia*; in the *Pleura*, *Pleuritis*; on the *Diaphragma*, *Paraphrenitis*; in the Brain, *Phrenitis*; in the Throat, *Angina*: outwardly, on the Throat, *Angina notha*; in the Eyes, *Ophthalmia*, &c. Or, laſtly, from the Matter: which if ſimple, it is a ſimple *Phlegmon*; if compound, it hath its denomination from the Humour with which it is compounded, and ſo is called *Eryſipelatodes*, *Phlegmatodes*, *Oedematodes*, *Scirrhodes*.

Cauſes. The *Cauſe* of *Phlegmon* is generally a *Plethora*, having ſome acrimonious mixture in the *ſerum* of the Bloud; which latter is the uſual matter of a *Phlegmon*, being caſt out of the veſſels, and lodged in the pores of the Skin, or other Part affected with it. This *ſerum* being accompanied by the thinner parts of the Bloud grows red and angry, and, wanting its due regreſs into the Maſs, firſt gathers into a hard Swelling, and in few days (if it be not diſcuſſed) ripens into Matter, and ſo diſchargeth.

Signs. The *Signs* of *Phlegmon* are, great pain, heat, inflamed red colour, and ſwelling, with hardneſs, pulſation, and tenſion. The Tumour growing big and more collected, a Suppuration ſucceeds, and then the Symptoms abate. As the Tumour riſeth into a Cone, ſo the Matter may be felt to fluctuate, and the Skin becomes thin and pale, *viz.* of the colour of the ſubjacent Matter.

Prognoſticks. The *Prognoſtick* is good, when the Tumour inſenſibly exhales and reſolves: in which caſe the ebullition abates, and the Bloud, being leſs violent in its motion, paſſeth gently by, and by degrees ſwalloweth up that Humour into its chanels again which it had in the time of its ebullition caſt out; or at leaſt, having ſuffered the thinner parts to tranſpire, it receiveth the reſt.

Next to this way of terminating a *Phlegmon*, Suppuration is beſt, when the Matter of the Tumour ripens into a kindly *pus*.

But it is of ill conſequence if the Tumour diſappear without abatement of Accidents, and the Fever ſtill continue. In this caſe either a Gangrene or

ſome

ſome other grievous Symptom ſucceeds: or, if it were the Criſis of a Fever, that encreaſeth, and the Life of the Patient is in great danger.

It is alſo ill when the Matter, in ſtead of reſolving, hardens, and the pain ceaſeth. It foreſheweth a ſcirrhous Tumour approaching.

Fat people are not ſo eaſily cured as lean. Nervous and tendinous Parts have worſe Symptoms, and are harder of Cure, than fleſhy ones.

If after great Abſceſſes the Body be not purged and regulated, they are apt to fall into ſome other Diſeaſe: otherwiſe they occaſion much Health.

The modern Authors have reduced the *Cure* of theſe Tumours to four heads: 1. to the manner of Living; 2. to the preventing the Influx of Humours; 3. to the evacuating the Humours already inflowed; 4. the correcting of the Accidents to which they are ſubject. Curē.

1. The manner of Living conſiſts in the moderation of the ſix *non naturales*. As, that the Diet be ſlender, cooling and moiſtening, whereby the increaſe of bloud may be moderated, and rendred leſs apt to flow into the weak Part: from which conſideration the Ancients, as I told you, allowed only enough to preſerve their Strength, with regard to their Habit of Body and Cuſtom of living. They generally preſcribed Panadoes, Barley-grewel, and ſuch like Spoon-meat. Chicken-broth is the higheſt whilſt the Humour is fermenting; but after Suppuration and diſcharge of Matter, greater liberty is permitted. Air, Exerciſe, Watching, Paſſions of the mind, *&c.* are to be regulated; as hath been ſaid in the preceding Chapter of *Tumours in general*.

2. The ſecond intention is performed by removing the Cauſe of the Tumour, which is the Plenitude and *Cacochymia*: the former whereof requires Bleeding, the latter Purging. Bleeding is here propoſed as the ſpeedy remedy, both for leſſening the Tumour, and appeaſing the Pain; and is made by opening a vein near to the Part affected. According to *Galen, debemus venam ſecare ad deliquium animi*, we ought to draw bloud to very fainting. Yet we are therein to conſider the Conſtitution and habit of body, and greatneſs of the Inflammation. Cupping, Friction and Deligation of the oppoſite Parts may be hereto neceſſary before the Tumour is made.

To take off the *Cacochymia* Purging with Lenients is proper; as *elect. lenitivum, diaprun. lenitivum, diacatholicon, caſſia, tamarindi, manna, cremor tartari*, Infuſions of *Senna*, Rhubarb, and opening Apozems; as hath been ſaid in the former Chapter. In the next place it will be proper to preſcribe ſuch Draughts as may quiet the motion of the Humours, and temper the heat of them, *viz.* Emulſions of the greater and leſſer cold Seeds made with *decoct. hordei*; alſo *Juleps*, with *ſyr. de papavere, Rhœad. paralyſeos, violar. è ſucco citri, &c.* in proper Vehicles.

3. The third intention regards the Part affected more immediately, and is the removing of the conjunct Matter. How that is done by Revulſion, Derivation, *&c.* I have ſhewed you in the former Chapter; as alſo how you are by Repellents to withſtand the influx of Humour in the very beginning; and of what quality the Medicaments proper thereto are, and in what caſes they are not to be applied; as in malign Tumours, or thoſe in the Emunctories, *&c.* I ſhall here only inſert ſome few Preſcriptions that are moſt peculiar in the ſeveral caſes, and begin with Repellents in the firſt place: of which ſort is *cerat. Galeni.* ℞ *ceræ alb.* ℥iv. *ol. roſati omphac.* ℔j. *novies laventur aq. font. deinde aceto ſubigantur.* Or this: ℞ *Empl. diachalc.* ℥iij. *boli armen.* ℈iij. *bacc. myrtill.* ℈ij. *aceti vini cochl.* iv. *ol. myrtill. q. ſ. fiat Ceratum.* Or this: ℞ *far. hordei* ℥vj. *cort. granat. pulv.* ℥ij. *balauſt. pulv.* ℥ß. *ſucc. ſedi maj.* ℥iij. *vini rub. q. ſ. coq. ad conſiſt. catapl. & in fine coctionis adde ol. myrtill.* ℥ij. Either of the

the two latter, if timely applied, will not only resist the Influx, but dry up the inflowed Humour. They must be renewed daily, lest they dry too much, and thereby increase the heat in the Part.

In the increase of Inflammation and Tumour, when it begins to be hard, you are to apply Resolvents with Repellents. ℞ *fol. malv. parietariæ, plantag. an.* M. j. *far. hord. & fabar. an* ℥iß. *flor. ros. rub. pulv.* ℥ß. *coq. in aq. font. fiat Catapl. S. A. addendo in fine ova integra num.* ij. *ol. cham. ros. q. s.*

When the Tumour is more form'd and harder, forbear Repellents, and apply Discutients and Emollients. ℞ *rad. & fol. althææ an.* M. j. *sem. lini & fœnug. an.* ℥vj. *flor. cham. meliloti pulv. an.* ℥ij. *far. hord. & tritici an.* ℥vj. *fiat Catapl. addendo mell. com.* ℥ij. *ol. sambucini & axungiæ anseris an.* ℥j. If the Tumour decline, ℞ *fol. parietariæ* M. ij. *sem. lini, fœnug. an.* ℥ß. *summitat. absinthii, anethi, flor. cham. sambuci pulv. an.* ℥iij. *flor. ros. rub.* ℥ß. *far. lentium & fabar.* ℥iv. *coq. in vino, & fiat Catapl. addendo ol. lumbricorum, anethi, an.* ℥ij. *mellis comm.* ℥jß. ℞ *Empl. de mucilag. Empl. oxycrocei, an* ℥ij. *diachyl. ireat.* ℥j. *ol. anethi q. s. fiat Ceratum.*

4. The fourth intention is, to remove the Accidents that frequently accompany these Inflammations; amongst which Pain is the chief: for that not only tireth and exhausteth the Spirits of the Patient, but also encreaseth Fluxion, and destroys the Temperament of the Part. Therefore you ought to have especial regard thereto, and by Anodynes appease the Pain. To which purpose I shall offer you this following Cataplasm. ℞ *fol. visci pomorum cum fructibus an.* M. j. *fol. hyoscyami* M. ij. *fol. papaver.* M. j. *sub cineribus coquantur; addendo tandem mic. panis albi in lacte tepido macerati* ℔ß. *vitell. ovi num.* ij. *pulv. croci* ℥j. *ol. chamæmeli & rosarum an. q. s. fiat Cataplasma S. A.*

The Fever which attends Pain is removed by Venæsection, or by the resolution or suppuration of the Tumour. If it shall unhappily indurate or gangrene, I refer you to those Chapters of *Scirrhus* and *Gangræna*: yet I think, if the method be rightly observed which hath been proposed, there will need no such reference.

The most safe and speedy way of curing *Phlegmons* is by Resolvents. In Wounds, Contusions and Ulcers, Inflammations for the most part go off so: and so would the greatest *Phlegmons*, if the foresaid method were truly observed. But the neglect of timely Bleeding, and the too hasty application of Pultices of White-bread and Milk, render them incapable of Repellents; and for the most part of Discussion: whence followeth a necessity of Suppurating.

The Medicaments that further Suppuration are suitable in their temper to the heat of the Part, so as to cherish it, and of an emplastick quality, hindering Transpiration. So Oyls and Grease, which are scarce permitted in Discutients, (farther than to give good consistence to the Medicine) are here proper. These following are Suppuratives. ℞ *radic. althææ, lilior. albor. an.* ℥iv. *branc. ursinæ* M. j. *coq. in brodio aut lacte ad mollitiem; deinde adde medullæ panis albi* ℔ß. *sem. lini pulv.* ℥ij. *axung. porcinæ & gallinaceæ an.* ℥ij. *vitell. ovor. num.* ij. *croci* ℥j. *Misc. fiat Cataplasma.* Or this: ℞ *rad. lilior.* ℥iij. *cepar. cocta. sub cineribus* ℥ij. *summitat. althææ* M. ij. *caricas pingues tost. num.* 6. *coq. & contusis adde far. tritic.* ℥ij. *pulv. sem. lini* ℥j. *axung. porcinæ* ℥ij. *unguent. basilici simpl.* ℥j. *ol. lilior. q. s. cum vitell. ovor. & croco: fiat Cataplasma.* Whilst you endeavour Suppuration, you must expose the Tumour as little to the air as may be.

The going off of the Accidents of pain, heat, pulsation, *&c.* are good signs of Suppuration: but if the Matter lie deep, the Symptoms do not cease till it be discharged; nor is the Suppuration discerned in some of them otherwise than

then by the fluctuation between your hands. In such cases, if you doubt Suppuration, continue the latter Cataplasm: for if the Tumour be opened before the Matter be well concocted, it will be the slower in healing.

If the Tumour become more compact, and thrust out in a Cone, and look pale, defer not the opening of it. For as the opening of Apostems before the Suppuration be perfected weakens the heat, and renders them crude: so the letting the Matter lie long after it is made gives way to its putrefaction, whereby the Parts underneath corrupt, and the Abscess becomes sinuous.

The manner of opening by Incision or Caustick, together with all directions necessary thereunto, have been sufficiently treated of in the former Chapter. The Cure of it, by digesting, deterging, incarning and cicatrizing, you will see in the Treatise of *Ulcers*, and in the following Observations.

I shall begin them with some instances of *Phlegmons* in their very first appearance: though I may doubt whether you will allow them for such, they being then so inconsiderably small, that the Patient himself thinketh it not worth while to send for a Chirurgeon. Nay, when the pain hath increased the Inflammation, and raised the Swelling big and hard, they for the most part permit them to be dressed by the next pretender to Chirurgery with Pultices, as I have said, of White-bread and Milk, and do not consult us till the Tumour be in its state; and then it is too late to repel them. Sometimes we may discuss them, but more frequently they suppurate, and are of longer Cure. Upon the considerations forementioned, it seemeth not easie for me to give you such instances of the beginning of a *Phlegmon* as may be suitable to the design of this Discourse: therefore I have set down the fewer of them, and taken them from such accidental causes as do generally make great Tumours, (if ill handled,) that you may thereby learn how to prevent their growth by the timely applications proposed in the method of Cure.

1. Observation, of the beginning of a *Phlegmon* in the right Hip.

A Man of about thirty six years old, after a hard Journey on horse-back, sitting upon a cold bench, was seiz'd with a pain in his right Hip, insomuch that he was scarce able to get up to his Chamber. The next morning he complained to me of his ill night's rest by reason of that pain, he not being able to move that Joynt. I embrocated the Part with *ol. ros. cum aceto*, and applied an *Empl. diachalcit. cum bolo*, and let him bloud in the Arm about ℥x. ordered him a Clyster that afternoon, and an Anodyne draught the night following of ℥ vj. *syr. de meconio in aq. papaver. cum aqua cinnamomi hordeat.* whereby he rested better. I continued the Embrocation and Emplaster, by which after a day or two the Fluxion was seemingly wasted; yet he complained of a pain deeper in the Joynt. I then caused a Bryony-root to be digged fresh out of the earth, and being washed, cut and beaten to a pulp in a Stone-mortar, I chafed the pained Hip with it, and applied it in the form of a Cataplasm. It did not lie well on, but by the use of it two or three days it discussed his pain, and he was cured. This began like a *Phlegmon*, and afterward threatned a *Sciatica*: whither it would have tended I leave others to judge; but from such little beginnings the greatest *Phlegmons* have taken their rise.

2. Observat. of a *Phlegmon*.

A Woman aged thirty four years walking in the street one evening, and passing near a Coach and horses, was bit in the right Breast by one of them. The next day she came to me, complaining of the pain, and shewed me her Breast. It was swelled to the bigness of a Hen's egg, with Inflammation and hardness, the print of the horse's teeth remaining in the skin near two inches distant from each side. I dressed it with *unguentum basilic.* and embrocated

the Tumour with *ol. roſ. cum aceto*, and applied an *Empl. è bolo* over all; then let her bloud, and ſent her that night an Anodyne draught of *aq. papaver. rhœad. cinnam. hordeat. cum ſyrupi de meconio* ℥ vj. She was purged the next day with an *Infuſ. ſenæ*,&c. By this method the pain and inflammation were remitted, and a great part of the hardneſs: the remainder was totally reſolved by the application of *unguent. baſilic.* ſpred thick in the form of an Emplaſter, and by repeating Purgations twice or thrice.

3. Obſervat. of a *Phlegmon.* A Man of about fourty years of age, of a full body, having (as he thought) heated himſelf in walking, took cold, and was ſeized with a ſtiffneſs and pain in his left Thigh, about four fingers breadth above his Knee. The morning after I ſaw it ſwell'd and ſomewhat inflamed. I embrocated it *cum ol. roſ. & aceto*, and applied an *Empl. oxal.* then let him bloud about ten or twelve ounces, and adviſed a Clyſter that afternoon, and deſired him to forbear full meals and ſtrong drink. The day after he was purged with *pulvis Cornachin.* and by repeating of the Embrocations and Emplaſter was cured of his Diſtemper.

4. Obſervat. of a *Phlegmon* with an *Herpes.* A Maid-ſervant about twenty ſix years of age, by reaſon of a ſuppreſſion of the *Menſtrua*, was ſeized with a pain in her right Thigh on the outſide. It growing more painful by the application of gummy Emplaſters, I was ſent for, and ſaw an hard collected Tumour of an oval figure lying under the *muſculus membranoſus* with Inflammation; alſo an *Herpes* over-ſpreading the Tumour and that ſide of the Thigh. It was certainly raiſed by their improper Applications. I let her bloud at leaſt twelve ounces, and applied a mixture of two parts *unguent. nutrit.* with one of *populeon*, and purged her the next day with *pil. cochiæ.* By repeating the ſame Purgative three or four times, intermitting a day or two between, and afterwards by the application of *unguent. nutritum* alone, the Inflammation was cooled, the *Herpes* extinguiſhed, and the Tumour waſted.

5. Obſervat. of a *Phlegmon* diſcuſſed. A Woman of about forty years of age, ſcorbutical, and of a full body, was pained in her right Thigh on the inſide. Somewhat ſhe applied her ſelf; but it growing more painful, I was permitted to ſee it. There was a hard Swelling with Inflammation, Pulſation, *&c.* as in a *Phlegmon* in its increaſe. I let her bloud about ten ounces, and embrocated it with *ol. roſ. & chamæmeli*, and applied *cerat. Galeni* on it; and ſome hours after I ſent her that Cataplaſm *ex fol. malv. pariet. plantag. cum ſem. Cydon.* &c. which ſhe applied. A Clyſter was that afternoon adminiſtred, and an Anodyne preſcribed. The next day ſhe was purged with this following Apozeme. ℞ *fol. ſenæ* ℥ ß. *rhabarb.* ʒ ij. *flor. ſambuci, macis,* ϑ ij. *fiat infuſ. in aq. matricariæ* ℥ viij. *ſucc. aurantior.* ℥ iv. *colat. adde mannæ* ℥ j ß. *ſyr. de ſpina cervina* ʒ vj. *dividatur pro duabus doſibus.* By the continued application of the Cataplaſm the Tumour diminiſhed with the hardneſs. In the declining of it I left out the Repellents, and added *pulver. balauſt. & baccar. myrtillor.* and boiled them in Wine, and added only *Mel* in the place of the Oyl: by which I dried up the remaining Humour, and reſtored the Part to its former health. Yet ſhe would not be ſatisfied without the application of an Emplaſter, which was *Empl. è bolo.*

6. Obſervat. of a *Phlegmon* diſcuſſed. One of about fifty five years of age, of a full body, ſubject to Gout and Scurvy, was taken with a Fever, which after a few days terminated in a pain of his right Arm about the *Biceps*, with Swelling and Inflammation. Cataplaſms were applied of White-bread and Milk: but the parts were thereby relaxed and rendred more ſubject to Fluxion, which ſwelled the Arm round and deep amongſt the Muſcles. A Chirurgeon was fetched, who, finding the Patient weak and treated by unhappy hands, declined the meddling with it, as not having been conſulted more timely; or, indeed, doubting how the Cure would

would ſucceed. I was then fetched, and obſerving the Tumour great, and threatning the deſtruction of the Member, I ſtuped it with Wine, to give a breathing to it, till I could make a Fomentation more for my purpoſe; which I haſtened by putting a ſhovel-full of Wood-aſhes into a quantity of water with a few herbs; as *ſummitat. abſinthii, centaur. cardui bened. flor. ſambuci, chamæmeli, ſem. fœnugræci*, &c. Which being boiled and ſtrained; I added Brandy-wine to it, and fomented the ſwell'd Arm, and the while made a Cataplaſm *ex far. hordei & fabar.* with ſome of the aforementioned Ingredients boiled in ſome of the ſame Fomentation, with the addition of *mel com.* and applied it. Being thus left alone to act without a Phyſician, I let him bloud in the other Arm, and preſcrib'd a Clyſter and a Cordial Julep of *aq. dracont. cardui bened. & citr. ſpec. de hyacintho, cum ſyr. de ſucco citr. & caryophillor.* with *aq. epidemica*, alſo an Anodyne draught to diſpoſe him to reſt that night; which he did better than he had done many nights before. By the uſe of the Fomentation and Cataplaſm the Swelling diſcuſſed, and our work went hopefully on: the Fever appearing then but ſymptomatical leſſened alſo, as the heat and pain mitigated. My next work was by Emollients to reſolve the hardneſs which poſſeſt the Muſcles and Tendons of the Arm and Elbow-joynt. To which purpoſe I fomented them with a Decoction of *fol. & radic. althæa, malvæ, tapſi barbati, rad. lilior. flor. chamæmeli, meliloti, ſem. lini, fœnugræci*, &c. made in Fleſh-broath, and embrocated them with a mixture of *unguent. dialthæa cum ol. lumbric. ex pedibus bovinis*, and applied *ceratum Agrippinæ*, with moderate Bandage over all. Thus I reſolved the hardneſs, and ſomewhat reſtored the Joynt: but the Arm continues weak to this day.

7. Obſervat of a *Phlegmon* ſuppurated in the Arm.

A young man aged about twenty years, riding a long journey in the heat of Summer, put his bloud into a ferment, which affected his Bridle-hand with great pain, and produced an Inflammation with Tumour in that Wriſt. To remedy which, he was let bloud in the other Arm, and the Part diſeaſed was embrocated with *ol. roſ. cum aceto*, and an *Empl. è bolo* was applied; and the ſecond day after he was purged with an *Infuſ. ſenæ*, &c. The Swelling increaſing, with Inflammation and hardneſs, the moderate repelling and diſcutient Cataplaſm *ex malv. pariet. plantag.* &c. was applied. But this Patient being of a very ill habit of body, the Tumour increaſed, and, collecting more round, ſhewed its inclination to ſuppurate: wherefore I left out the Repellents, and added *rad. lilior. albor.* &c. by the application whereof it ſuppurated in few days after. I opened it by Cauſtick, and diſcharged a proportionable quantity of Matter well concocted, and haſtned the fall of the Eſcar by Lenients. During the Fluxion (which was in the Wriſt amongſt the Tendons) he complained of a ſoreneſs in that *Axilla*, but took little notice of it, till, after the opening this, (the pain diminiſhing there) he felt that in his Arm pit more ſore. I alſo felt a ſmall Gland there, and applied an *Empl. de mucilaginibus*, ſuppoſing that would reſolve it. After the ſeparation of the Eſcar, whilſt I was digeſting that Abſceſs, he was again purged: but the Swelling increaſed in the *Axilla*, and ſuppurated, and was likewiſe opened by Cauſtick, and endeavours uſed to digeſt that. But whilſt the former Abſceſs cured, this latter became more crude and ſinuous, and the Patient was ſeized with a Rigour, and a Fever followed; for the Cure of which he was let bloud again and purged, by Doctor *Walter Needham* his preſcription, with an Infuſion of *ſena* in a *decoct. tamarindor.* with the addition of *manna, ſyr. de pomis purg. & ſyr. de ſpina cervina.* By the repeating of this he was freed of his Fever, but the Abſceſs would not digeſt three days together by any application: upon which conſideration we preſcribed him *decoct. ſarſæ, lign. Guaiaci*, &c. By the drin-

king thereof a few days the Abſceſs digeſted, and healed ſoon after to a wonder.

8. Obſervat. of a *Phlegmon* ſuppurated in the Breaſt.

A Maid of about twenty eight years old, of a groſs body, receiving by accident a blow on her right Breaſt, it ſwelled, and grew hard and painful. After ſeveral applications, the hardneſs and pain rather increaſing, ſhe, ſuſpecting a Cancer, came to me. I viewed it, but ſaw no Symptoms of it. I embrocated it *cum oleo & aceto roſac.* and applied an *Empl. de minio cum ſapone*, and the day after let her bloud, and then purged her with Whey, Manna and Cremor Tartar; by which the hardneſs was ſeemingly reſolved for ſome time: but ſhe being irregular in her appetite, it ſwelled again as when I firſt ſaw it. Upon which conſideration I applied Emollients; and ſeeing the Tumour increaſe, and ſhe impatient at the ſight of it, I applied a Suppurative Cataplaſm *ex rad. & fol. althæa, rad. lilior. alb.* &c. By the continued uſe of it in a few days it ſuppurated well, and I opened it by Cauſtick in the declining part, and diſcharged a large quantity of Matter. I dreſſed the Abſceſs with Lenients, and continued the uſe of the Cataplaſm till the Eſcar ſeparated: then I deterg'd with *mundif. Paracelſi*, and applied *Empl. de mucilag.* and ſhortned the Tent. The Orifice growing leſs, and ſomewhat of the hardneſs yet remaining, I put in a ſhort *Cannicula* of Lead, and kept the Orifice open, till the hardneſs was totally reſolved, and that it matter'd very little, or not at all; then threw out the Tent, and applied a Pledgit of *unguent. diapompholig.* and permitted it to heal: which it did in few days. This was a pure *Phlegmon*, and lay deep in the Breaſt, and owed its ſpeedy Cure to the perfect Suppuration was made in it before the Opening. For otherwiſe ſuch Abſceſſes in large Breaſts do frequently terminate in ſinuous Ulcers, and grow callous, by reaſon of their laxity and want of natural heat.

9. Obſervat. of a *Phlegmon*.

A Gentleman of about fifty ſix years of age, ſtanding long in the cold to ſee ſome extraordinary Show, was taken with a pain above his left Hip, and the ſecond day after ſent to me for an Emplaſter. The Meſſenger not telling me the name of the Patient, nor where he lodged, I ſent him an *Emplaſt. è bolo*, proper to reſiſt, and defend a Part from Fluxion. The fourth day after he ſent to me for another Emplaſter, ſignifying to me that his pain was much increaſed; and two days after ſent for me. I went, and ſaw a large Tumour lying upon the *Ilion* backwards, with great Inflammation and hardneſs, with all the Symptoms of a *Phlegmon* near its ſtate. I directed a Cataplaſm to be made *ex ſummitat. malvæ, biſmalvæ, abſinthii, flor. ſambuci, meliloti, ſem. lini, fœnugræci, far. hordei*, with an addition of *mel commun. ol. cham. vitell. ovor. & croc.* and in the interim let him bloud, and adviſed a Clyſter to be adminiſtred that afternoon. If this perſon had been of a temperate life, and been let bloud when he ſent for the firſt Emplaſter, this Tumour might have been happily repelled; but it was now too late to diſcuſs it: yet I repeated the application of that Cataplaſm till I ſaw it more collected, and then I haſtned Suppuration, by one of the milder Suppuratives ſet down in the method of Cure; by the uſe of which the Tumour was more collected and raiſed into a Cone, and by its pale colour and thinneſs of the skin gave an aſſurance of a perfect Suppuration. Then I applied ſome of the milder Cauſtick, with an *Empl. diachyl. ſimpl.* over it, and the Cataplaſm over all. The next day I took off the Dreſſings, with deſign to divide the Eſcar: but it was done to my hands, and a large quantity of a well-digeſted Matter was diſcharged. I fomented the Abſceſs with a Stupe wrung out of Milk, and dreſſed the Eſcar with a Pledgit of *unguent. baſilic.* dipt in *ol. roſ.* and continued the application of the Cataplaſm. Thus in few days the Swelling aſſwaged, and the Eſcar ſeparated. I then endeavoured Deterſion with *mundif. Paracelſi*: but the Abſceſs

ſceſs being large, and the Suppuration in the middle, and the Part not very capable of Bandage, there remained a large hollowneſs, which put me upon a neceſſity of laying it more open, for the ſpeedy effecting the Cure; which I did with a pair of Probe-ſciſſors. This work is neceſſary in ſuch large *Phlegmons*; and therefore it is, I ſuppoſe, that *Sennertus* places his Chapter *de Sinubus* next to that of a *Phlegmon*. After I had made this Inciſion, I dreſſed it with that Digeſtive *ex terebinth. cum vitello ovi*, &c. and having digeſted it, I incarned, by adding *pulv. rad. iridis, ariſtoloch. rot. ſarcocoll.* &c. to the Digeſtive: and by the help of the Vitriol and Alume-ſtones, *unguent. tutiæ* and *Emplaſt. diachalciteos*, I cicatrized it.

10 Obſervat. of a *Phlegmon* gangrened by improper applications.

In the time of the Civil Wars a Gentleman in the Weſt-countrey was ſorely pained with an Inflammation and Swelling upon the *os Ilion* on the left ſide. Some one apply'd a Cataplaſm to it of White-bread and Milk with Hogs lard; a Medicament proper to aſſwage pain, but being applied in the augment in a full body, it relaxed the parts, and made way for the influx and increaſe of the Tumour. Upon farther complaint, ſome other of his acquaintance adviſed the application of Houſeleek, *&c.* by which the native heat ſuffocated, and the Part gangrened. Sir *Alexander Fraſier*, chief Phyſician to his Majeſty, and my ſelf were fetched, and ſaw the Tumour black and ſunk the compaſs of the palm of an hand. We made deep Scarifications, and waſhed it with a Solution of *Ægyptiac. in ſpir. vini*, and filled the inciſed parts, eſpecially in the circumference between the ſound and gangrened parts, with *Merc. præcipitat.* and applied over all a Cataplaſm, ſuch as you will find ſet down in the Chap. of *Gangrænæ*. Where we had applied our Precipitate, we found a perfect white Matter: it was but little in quantity, but by the uſe of the ſame Powder we ſaw the Mortification ſtopt, and the Eſcar in few days after ſeparated with good digeſtion. The Ulcer was afterwards deterged with *mundif. Paracelſi*, and cured by Epuloticks, as in the Cure of *Ulcers*.

11. Obſervat of a *Phlegmon* gangrened after Opening.

As *Phlegmons* are ſubject to mortification through unſeaſonable application of Medicaments in time of their ſtate; ſo alſo in fat bodies they are apt to gangrene after Opening, if that Fat be not ſpeedily digeſted out. Thus it happened to a perſon labouring of a *Phlegmon* on the *Os ſacrum*. After the diſcharge of Matter the Ulcer became crude and gangrened. Another Chirurgeon was conſulted, who ſcarified the Abſceſs, and by his warm applications ſuppoſed he had extinguiſhed the Mortification: but it appearing otherwiſe, I was fetched, and ſaw the lips and parts within gangrened and gleeting. We ſcarified the lips: but finding them to be gangrened more within than without, we pared them off round, then ſcarified the Abſceſs within, and cut out the putrefied Fat, and with an armed Probe dipt in *oleo garyophyllor.* hot cleanſed the Abſceſs, and fill'd the Scarifications with *Merc. præcipitat.* We then dreſſed up the Abſceſs with a mixture of *unguent. baſilicon & ol. terebinth.* and applied Cataplaſms and Fomentations, as is uſual in ſuch caſes. The next day we came provided with actual Cauteries, but found the Abſceſs warm, and diſpoſing to digeſtion in the lips and fleſhy parts: and from that time it digeſted well. But in the *baſis* of the Ulcer, where the Mortification had reached to the *Perioſteum*, the ſlough ſeparated more ſlowly: but by the warm application of Lenients it came off, and the Ulcer happily incarned.

Over-ſtrict Bandage is a frequent cauſe of *Phlegmon*, of which I do make obſervation for the cautioning of the yong Chirurgeons in the caſe of Fontanels.

12. Obſervat of ſtrict Bandage.

A perſon of a plethorick body, aged about thirty years, being ſubject to hot Defluxions of ſharp Rheum, was adviſed to make a Fontanel in her Arm by Cauſtick. I applied the milder, with an Emplaſter and moderate Bandage

to

to retain it on, with advice to ſlacken it, if there appeared cauſe. The next morning ſhe told me the Bandage had been eaſie all the day, upon which account ſhe had not ſlackened it; but it pained her in the night, and ſwelled her Arm. It did not ſeem too ſtreight; nay, I think if it had been ſlacker, it would have ſlipt down her Arm, being taper-grown: but the Tumour ſhewed the Bandage to be too hard. I looſened it, and took off the Cauſtick; where finding a ſmall Eſcar, I divided it, and dreſſed it with *unguent. baſilic.* with an Emplaſter to retain it on, leaving the Arm at liberty. She was eaſie that day; but about twelve of the clock at night ſhe was waken'd with the pain, and ſent to me. The Fontanel not being in fault, I returned her a glaſs with *ol. roſ. cum aceto* to embrocate her Arm. The next morning I viſited her: there appeared leſs fulneſs and no heat, but ſhe complained of a numbneſs in her Hand. I left her to the uſe of the Oyl: it wore off in a day or two. After the ſeparation of the Eſcar, I put in a Pea, and fitted it with Bandage: from which time it continued eaſie. I foreſaw this diſturbance, and adviſed her to bleed and purge firſt, but could not prevail.

In fat fleſhy Arms you may produce the like by a moderate ſtrict Bandage, when the Humours are in a fermenting diſpoſition. The way to avoid ſuch inconvenience is, firſt to make evacuation by bleeding or purging: for from ſuch little beginnings greater evils do follow. And if this Fontanel had been made by the *lapis cauſticus*, it had penetrated deep, and might by ſuch a flux of Humours have been ſhrewdly diſturbed: or if it had been made by Inciſion, it would have been inflamed; and then the concluſion would have been, that it was made upon a Nerve or Tendon; though poſſibly in ſuch fat Arms there is none within half an inch under it.

13. Obſervat. of over-ſtrict Bandage.

I ſhall give you another inſtance in a Gentleman who came out of the Countrey, and put himſelf into the hands of a Chirurgeon, in which caſe I was conſulted. The Tumour was in his left Arm upon the *Biceps*, and was cauſed by over-ſtrict binding of his Iſſue. It was raiſed below the Bandage; and as it abounded with Matter, it diſcharged it ſelf into the Fontanel. The Cure was performed by the application of a Cauſtick upon the lower part of the Tumour, and the Matter was let out by cutting deep into the Eſcar; after which it was digeſted and incarned by the ſaid Chirurgeon, as in other Abſceſſes is uſual.

Many inſtances we have of this kind in Infants, who cannot expreſs their grievances, eſpecially where Iſſues are cut in their Arms. The Nurſes ſometimes binding them too ſlack, whereby the Pea ſlides out, and the Iſſue being almoſt cloſed before the next dreſſing, they, to recover their errour, force in another, and by too hard Bandage raiſe a Tumour with Inflammation, to the great diſturbance of the Child.

14. Obſervat. of Gangrene from over-ſtrict Bandage.

Thus ſomewhile ſince a Child in my neighbourhood was ſeized with an Inflammation from the Shoulder down to the Elbow, and from thence an œdematous Tumour reached to the Fingers ends, the Fontanel it ſelf gangrened. I threw out the Pea, and ſcarified the lips of the Ulcer, and dapt it with *ol. terebinth.* hot with an armed Probe, and applied Pledgits dipt in a mixture of the ſaid Oyl and *unguent. baſilicon*; and having fomented it well with a *decoct. abſinthii*, &c. I applied a Cataplaſm *ex far. hordei & fabar.* decocted in *Oxymel* over that part of the Arm, and upon the remote parts I applied *cerat. Galeni* with good Bandage from the Hand upward. By this means the Humour was moderately repreſſed, and breathed forth, the Eſcar alſo ſeparated in the Fontanel; after which the Ulcer incarned with common Sarcoticks, and the Ulcerations about it were cured by *unguent. tutiæ* and ſuch like Epuloticks.

A perſon

A perſon of about forty five years of age, of a full body, ſubject to various Diſeaſes from plenitude and *cacochymia*, as Lethargy, *&c.* was lately in danger of ſinking under an Apoplectical Fit, but was freed of it by a tranſlation of thoſe Humours into his right Leg, with great pain, and an Inflammation of a deep red colour poſſeſſing only the skin; but the Swelling was great, reaching from the gartering to the very Toes. It was *Phlegmon erysipelatodes*, and in his caſe required to be breathed forth by Medicaments of a temperate quality, yet ſomewhat cooling. To which purpoſe I preſently fomented it with Claret-wine, and applied *ceratum Galeni* over all the Leg, with a moderate Bandage; then let him bloud, and directed him a Clyſter. The next morning I took off the Dreſſings, and found his Leg in a better condition. I bathed it with Claret-wine wherein I had boiled *ſummitat. abſinthii, ſalviæ, flor. ſambuci, roſ. rub.* and applied the *cerat. Galeni* as before, and continued that method ſome days; he purging himſelf the while with Whey, *Manna*, and *cremor Tartar.* Thus the heat remitted, and the Swelling relaxed; yet the *Cuticula* was fretted off in ſeveral parts, and I felt a ſmall collection of Matter under the skin on the inſide of the Anckle; which I gave vent to by an Apertion with a Lancet, and diſcharged about a ſpoonful of a thin white Matter. I applied a Pledgit of *baſilicon* upon it, and dreſſed the Veſications with *unguent. tutiæ*; by which in three or four days they were cured: after which I put him a laced Stocking on that Leg, whereby it was reduced to its right tone. I had made him Fontanels *inter ſcapulas* heretofore, which he continues to good purpoſe.

15. Obſervat. of *Phlegmon erysipelatodes.*

A Maid aged twenty four years was ſeized with a pain in her Head and Rigour of a Fever; the ſecond or third day ſhe had an Inflammation in her right Leg a little above her Knee and ſo downward. After ſeveral applications of Perſley, Butter, *&c.* I ſaw it. The Inflammation was in the Skin, and reached down from the Knee in a red ſtreak about four fingers breadth to the Inſtep: that inflamed Skin was tenſe, but ſeemed to have Matter lying under it. I made Apertion with a Lancet on the Knee, and diſcharged a well-concocted white Matter. I then made another Apertion lower, and another in the loweſt part, with like ſucceſs: the bloud alſo trickled down in good quantity from the little wounds in the skin. I permitted them to bleed, ſhe having need of ſuch an Evacuation; then dreſſed them up with *unguent. baſilici cum vitello ovi* upon Pledgits of Lint, and applied *cerat. Galeni* over them with convenient Bandage. The next day ſhe was purged with *Elect. lenitiv.* and her Leg was ſtuped with *decoct. ſalviæ, betonicæ, flor. roſ. rub.* We dreſſed the Apertions as before. This Maid was lately come out of the Countrey, and, by reaſon of the change of Air and courſe of life, abounded with Humours which required Evacuation: therefore during her Cure I let her bloud, and purged her twice or thrice, by which ſhe was reſtored to health; and the Matter having been ſo opportunely let out, the Inflammation went off, and the Apertures cured by a few dreſſings of *unguent. tutiæ.*

16 Obſervat. of *Phlegmon erysipelatodes.*

A Man aged about forty years, of a healthful complexion, haſtening from *London* (in the time of the laſt great Sickneſs) to his houſe in the Country by great journeys on horſe-back, to avoid Infection, which the Inns on the Road were ſubject to, choſe to reſt himſelf on his way by lying down in the fields, whilſt his horſe baited on the graſs near him. But having heated his body by journeying, he took cold by lying upon the ground, and in riſing felt a great pain in the region of his right Kidney, and returned to his houſe very ill. He conſulted the Phyſicians in his Neighbourhood. They at firſt ſuſpected ſome Diſeaſe in that Kidney: but there being no Symptoms of it in his Urine, they imputed it to other cauſes, and preſcribed Remedies accordingly.

17. Obſervat. of *Phlegmon* by Tranſlation.

dingly. But the Cure not ſucceeding, they adviſed him to *Buckſtone Waters* in the County of *Derby*: whither he went, and returned more pained. I, being at that time in a neighbouring County, was ſent for, and found him in his Bed much emaciated. From the region of that Kidney down to his Hip and Thigh there appeared a more than ordinary fulneſs, and in that Groin there was a painful Swelling, in which there ſeemed to be Matter, but it lay deep: I applied to it a ſuppurative Cataplaſm *ex foliis & rad. althææ, rad. lilior. albor.* &c. to ſuppurate it. To the other pained parts I applied *Empl. è bolo.* By the uſe of the Cataplaſm the Tumour *in Inguine* appeared daily more full of Matter, and ſeemed to me to be made by Tranſlation; therefore I did not attend a perfect Suppuration, but applied a Cauſtick, and, cutting into the Eſcar deep, diſcharged a much greater quantity of Matter than that Cavity was capable of; beſides, by its fœtid ſmell it ſeemed to have been long made. I dreſſed it up with Lenients. From this Dreſſing his pain leſſened; but the Matter which diſcharged daily from it was very much. I made a ſearch with a Probe, and felt it paſs under the *Pubes* into the Muſcle *Pſoas*, (as I conjectured:) upon ſight of which I contented my ſelf in keeping the Orifice open for the diſcharge of the Matter, and preſcribed him Vulneraries. The fulneſs from the region of that Kidney to the Hip continuing exceeding painful, I made a Seton upon the latter, hoping thereby to give a vent to that Humour. The firſt three or four days it matter'd little; but afterward, in drawing the Seton, the Matter burſt forth in great quantity: upon ſight whereof I cut the two Orifices into one, and took out the Seton, and dreſſed it up with Lenients. This was a fœtid purulent Matter, and ſeemed to be of the ſame kind with the other which diſcharged from his Groin. His next great complaint was of pain in the region of that Kidney. I ſuppoſing that the original Matter might ariſe from thence, and paſs inwardly to the Groin, and outwardly to the Hip, thought, if I could give a vent there, it might poſſibly intercept the Matter in its courſe to the other Abſceſſes. I therefore applied a Cauſtick upon the moſt likely part. The firſt four or five days after the diviſion of the Eſcar there appeared no Matter; but before it was quite ſeparated it made its way plentifully out, and the other Abſceſſes were more governable, and the Patient was certainly much relieved. But one afternoon, while he was lying in Bed, and telling us a ſtory of ſome pleaſant paſſages in his Profeſſion, he ſuddenly died, we ſuppoſed from an eruption of the great Artery; for we found much bloud poured forth from all the Abſceſſes, but eſpecially that on the region of that Kidney. During the time of his ſickneſs his Urine was without Bloud or Matter, and paſſed freely without the leaſt diſturbance. I would gladly have opened his Body, but was not permitted.

Obſervatio caſûs non vulgaris de Sarcomate in arteria axillari reperto, communicata à Cl. viro *Ed. Duke*, M. D.

18. Obſervat. *Die quinto* Aprilis *Puella quædam* 16 *annorum, Filia Nobilis viri, febricitavit, & capite dolebat. Die ſequente de cervice rigida & dolente conqueſta fuit. Tertio Tumor occupavit humerum. Quarto vocatus adfui, Febre laborantem inveni, & Tumore circa humerum gravatam. Huic menſes paulò antea ſubſtiterunt, & fallaci impetu in maſſam ſanguinis traducti ejus molem adauxerunt, colliſisque ad invicem particulis putridis Febrem excitaverunt, cujus ope natura partem ſanguinis concitati ductilisque in humerum (ſui levandi causâ) tranſtulit. Apparatus ſanè pro Phlegmone notha ſtruenda idoneus. Hiſce perpenſis, Revulſio inſtituitur per phlebotomiam in latere oppoſito, præmiſſo Clyſtere, nec non diſcutientia Tumori adhibentur, Febriſque pro more ſuo tractatur. Septimo die Chirur-*

gum

gum vocavi Artis peritissimum, Dominum R. Wiseman. *Ad trutinam res denuo revocatur; & ex indicatis ducimur Revulsionem repetere, placidéque per media conferentia humorem ducere, sine tædio & incommodo Suppurationis. Elapso autem biduo adsunt Abscessus maturescentis indicia, & commodùm satis Materia in musculo Deltoide circa ejus initium præsentiam sui testabatur, cui per Causticum datur exitus. Aperto Apostemate effluxit illico pus laudabile, quod per intervalla debita & partitim fuit eliminatum. Tertio post apertionem die consistentia Materiæ tenuior & malè olens: quinto autem in saniem degener, cum fœtore insigni & cadaveroso. Chirurgus ad mundificantia progreditur: sed sub examine cavitatis occurrit nescio quid grumosum, seu potiùs densa & thrombo magìs cohærens substantia cruenta. Stylo igitur exploratorio undiquaque per Abscessûs cavernam circumacto, ductus versus interiora detegitur: cautè interim tractatur ulcus, nè sanies effusior vires attereret: ultro tamen per noctis intervalla effunditur, & certitudinem eroso vasis confirmavit. Jam tandem Catarrho perpetim in fauces depluente, aphthis os & gulam obsidentibus, Febréque scintillante in Materia maligna, quæ sparsa & indomabilis sub uniformi naturæ concoquentis opificio subigi recusavit, virtus vitalis fatiscit, & morbus insolens vigesimo primo ab invasione die de natura triumphavit. Aperto cadavere, ecce, cruentum illud coagulum seu figmentum sanguinis ad latera claviculæ conspicitur, pérque semitam arteriæ axillaris frequenti hujus substantiæ conspectu ducimur rectà ad cordis ventriculum sinistrum; quo loci ad ovi columbini magnitudinem congestum invenimus Sarcoma pelliculâ densâ circumvestitum. Mirum sanè, hospitem tam malè moratum palatio illo augusto toto frui, sine ullo viventis de dolore cordis sensu, vel symptomate læsarum ejus exinde actionum eminenti. Imò per totum morbi decursum interrogata quomodo se haberet, quàm optimè se corde valere respondit; & sponte etiam non longè ante obitum in eadem verba prorupit.*

Chap. IV.

Of Tumours from Milk.

Milk (though I cannot say that it is often the matter) is certainly the occasion of many Tumours of divers kinds. I know Authors make it the material Cause of many of the Diseases of the Breasts: but such men must be understood warily. For if by *Milk* in this assertion they mean Milk actually generated, and separated from the Bloud, then I know but few cases in which that can be supposed to be the matter of a Distemper: for when it is in that condition, it is laid up in certain *tubuli lactei*, which, being spred all over the Breast, do unite their branches after the manner of Veins, still growing into bigger trunks, till they do end at last in the Nipple. Now the motion of this Milk being *de vasis minoribus in majora*, what is once separated from the Bloud in the Glands of it into those Vessels hath nothing to stop its progress till it comes to the very place of its *Exit* from the Nipple. If any stop preternaturally happen, as the compression of the Vessel by some Tumour of a Glandule, or the like, then indeed a varicosity of the lacteous Vessels may arise: of which case you may see an Observation in the Chap. of *Varix*.

This case is rare; but there be others very frequent: *viz.* That the Glandules through which Milk is separated may either through fault of the Ferment by which they make that separation produce divers variety of Distem-

pers, or through an indiſpoſition of their Pores not permit a due percolation of it from the Bloud. When any of theſe things happen, there is a diſturbance in the Circulation, and Fluxion doth ariſe, which ſoon produceth a Tumour ſuitable to the Humour ſo ſtirr'd up; *viz. Phlegmon, Oedema, Scirrhus, Scrophula*, yea ſometime *Cancer*.

This Diſcourſe may ſerve for a general account of the *Cauſes* of the *milky Tumours* of the Breaſts, and may eaſily be enlarged to ſuch particular caſes as may emerge.

Differences. The *Differences* may thus be enumerated. If the Ferment of the Breaſt be over-active and vigorous, it ſeparates Milk with too great violence, cauſing thereby an over-fermentation in the Part, which uſually produceth a *Phlegmon*, if the *ſerum* be hot, or partake much of Bloud: otherwiſe it raiſeth an *Oedema*; or, if Matter diſpoſe to coagulation, a *Scrophula*: which are the moſt frequent ſpecies of Tumours generally reputed to ariſe from Milk. Any of theſe three may degenerate into a *Scirrhus*, and that *Scirrhus* into a *Cancer*.

Signs. The *Signs* are viſible. If the firſt happen, there are all the Symptoms of a *Phlegmon*, heat, redneſs, tenſion, pulſation, *&c.* if the ſecond, large diſtenſion, with pain, but no heat: if a *Scrophula*, then hard kernels are eaſily felt and diſtinguiſhed, *&c.*

Prognoſtick. Tumours made by the over-eagerneſs of the lacteous Ferment go eaſily off, if no other Symptom attend them: ſucking and drawing the Breaſt for the moſt part diſchargeth the Milk as faſt as it can be generated, and then all the evil is over. But if the Fermentation produce any diſorder in the Bloud, the Patient finds more or leſs of danger according to the quality of the Tumour produced: *viz.* a *Phlegmon* endangereth them of a Fever; œdematous Tumours are apt to grow ulcerous, and ſometimes ſcrophulous and ſcirrhous, and become long of Cure, *&c.*

Diet. Foraſmuch as it frequently happeneth to women in Child-bed, that their Breaſts do extraordinarily ſwell by reaſon of the abundance of Milk which floweth into them, and that it ſtirreth up Inflammations, Apoſtemations, *&c.* therefore their *Diet* ought to be ſlender, and of ſuch quality as may leſs diſpoſe the Humours to ferment: to which purpoſe I ſhall refer you to the regulation preſcribed in a *Phlegmon*.

Cure of a *Phlegmon* in the Breaſt. The Medicaments proper to diminiſh the Milk are, Lettice, Purſelane, Endive, Succory, Smallage, *&c.* The ſeeds of wild Rue, Cummin, Baſil, powdred and given to the quantity of ʒj. daily in Broath, will dry up the Milk, as Authors write.

The Milk is uſually drawn out of the Breaſts by the Infant's ſucking them: but in caſe the Child be ſo weak it cannot ſuck, or doth not enough empty them, ſome others are to be admitted to help them; or they may put young Whelps to ſuck them, or ſome neighbouring woman. But the Mother may draw her own Breaſts her ſelf by an Inſtrument ſold for that purpoſe.

The Tumour made by the Milk is reſtrained by the application of Night-ſhade, Lettice, Plantane, Vine-tops, Bramble-buds, Horſe-tail, *&c.* or *ol. roſ. myrtill. cum aceto*, &c. as we uſually treat *Phlegmons* in the beginning.

It may be diſcuſſed by the application of Mints, Catmints, Rue, *ſem. fœnugræc. cumini, fœniculi*, &c. or dried up by the applying cloaths dipt in *aqua calcis*, or a Solution of *ſacchar. Saturni in aqua ſpermat. ranar.* during which time fine Towe may be ſprinkled with Ceruſe, and applied to the Armpits. But in the beginning of Fluxion we are rarely conſulted.

Where I have by chance come in to women that have been much pained with ſwelling in their Breaſts from Milk, I have applied *Emplaſt. è bolo*, or a Cataplaſm of *far. hordei, fabar. lentium*, decocted in *oxymel*, or *cerat.*

cerat. oxelæum, or *ſantalinum*, and at the ſame time Towe dipt in *oxycrate* under their Arms.

If the Inflammation be gone too far towards a Suppuration, (which uſually is before we are called) then it muſt be promoted with Suppuratives, and open'd by Inciſion or Cauſtick, and treated as a *Phlegmon* hath been.

Where the Swelling hath been hard, and not inflamed, ℞ *ſummitat. abſinth.* *pulv.* ℥ij. *ſem. lentium, fænugræci, fæniculi, an.* ℥j. *ſuc. hyoſcyami, cicut. an.* ℥iij. *unguent. dialthææ* ℥ij. *axung. anatis, anſeris, an.* ℥j. *ſevi cervini* ℥ij. *ſtyracis liquidæ* ℥ß. *ceræ q. ſ. fiat Ceratum.* Cure of œdematous Tumours of the Breaſt.

Cicuta boil'd in Wine and beaten up with *axung. porcin.* reſolves the hardneſs in the Breaſts; but applied alone ſtirs up heat, and ulcerates the Skin. Green Mints or Chickweed are common applications, and of good uſe, either alone, or mixt with other Medicaments, in all the hard Swellings of the Breaſt occaſioned by Milk. All Emplaſters applied to the Breaſts ought to have a hole ſnipt in them for the Nipples, leſt they be fretted by them; eſpecially that the Milk may be drawn forth while the Medicaments lie on. Caution.

A Young Gentlewoman, endeavouring to dry up her Milk when it was too late, put her Breaſt upon Apoſtemation. I preſcribed her an anodyne Cataplaſm, and a day or two after applied a Cauſtick, and gave vent to the Matter; then dreſſed the Eſcar with *unguent. baſilic.* and applied *cerat. dialthææ* over the whole Breaſt, and left her of the ſame Medicaments to dreſs her ſelf with, and once in two or three days viſited her. After the Eſcar ſeparated, and the Matter was well diſcharged, I dreſt her with *unguent. diapompholyg.* and left her of the ſame to finiſh the Cure. Many of theſe, where the Matter hath lain ſuperficial, I have cured as eaſily. 1. Obſervat.

A young Woman after Child-bed was vexed with a Swelling in her Breaſt. One was fetcht who poſſeſt her Relations that it was a Cancer, and treated her accordingly. But her Breaſt growing more painful, her Father, much apprehending the danger of ſuch a Diſeaſe, came to Sir *Fran. Pr.* and acquainted him with his Daughter's Diſtemper, and the Judgment that had been given of it; deſiring that he would inſtantly go with him to ſee his Daughter. The Phyſician, wary in giving his Judgment in Chirurgery where there might happen any diſpute, adviſed the Father to take me along with them. We went together, expecting to ſee a Cancer in the Breaſt: we found her in bed bemoaning her condition. I viewed her Breaſt, and ſaw it very big and inflamed, and felt it all apoſtemated, and the Matter perfectly well ſuppurated, the Skin thin and ready to break. I could ſcarce believe what I felt and ſaw. I declared the ſwelled Breaſt to be a *Phlegmon* well ſuppurated, and fit to open. The Phyſician looked and felt it; but, being prepoſſeſſed with the contrary, did not readily give credit to what he felt. I then propoſed the applying a Cataplaſm of White-bread and Milk, aſſuring them before morning they ſhould find a Porrenger-full of Matter diſcharged. They conſented unto it. We took our leaves, and left them to apply it; they did ſo: and the next morning the old Gentleman made the Phyſician a viſit, and confirmed the truth of what I had foretold, and by the uſe of *unguent. baſilicon.* cured it without farther trouble. 2. Obſervat.

The Matter being well ſuppurated, and a convenient Opening made for diſcharge, they generally heal of themſelves, if the Habit of body be good: but where it is otherwiſe, or irregularly treated, there it is vexatious in the Cure.

While I was dreſſing a Patient in a Citizen's houſe, I was deſired to look upon the Breaſt of the Gentlewoman of the houſe. She had lately layn in, 3. Obſervat.

and from abundance of Milk and ill handling her right Breaſt had been apoſtemated, and was broken out in many holes. A woman famous in the City for dreſſing ſore Breaſts was her Chirurgeon. I obſerved that the Breaſt had at firſt broke in the upper part in a ſmall pin-hole; and the Matter, not having had ſufficient diſcharge, had ſubſided, and ſo made the other Openings, and afterwards paſſed an inch lower than any of the Openings, and could not be diſcharged otherwiſe than as it fill'd up the *Sinus*, and ran over, or was preſt from below upward with her hand. By this means the Breaſt continued inflamed and apoſtemated; inſomuch as it was impoſſible to cure it by that method till it had apoſtemated the whole Breaſt. I pitied the Patient, and wondred that a woman ſo famed for ſuch Cures could be ſo ignorant, and yet preſerve her credit with that Sex.

I ſhewed the Patient the cauſe of her pain, and the unlikelihood of being ſuddenly cured by ſuch a Chirurgeon, and prevailed with her to permit me to lay on a Cauſtick upon the depending Part; and having made an Eſcar the compaſs of three-pence, opened it, and gave vent to the Matter, and left her a little *unguent. baſilic.* to apply daily upon that Orifice, and ſome *unguent. tutiæ* to dreſs the reſt. By the uſe of which ſhe was cured in few days without more directions from me. Yet the good Gentlewoman, I dare ſay, is of ſo kind a nature, as ſhe would quarrel in defence of her She-Chirurgeon.

Obſervat. A young Gentlewoman after Child-bed being indiſpoſed in her health, her left Breaſt became diſeaſed, and ſwelled. They contented themſelves with ſuch help as thoſe about them could afford. But after ſome days it growing more painful and ſwelled, the Apothecary brought in his Brother, who endeavoured Suppuration, and after ſome while gave vent to the Matter, and proceeded in the Cure. But while he was dreſſing that Opening, the Fluxion increaſed, and other Abſceſſes were raiſed, and from the ſeveral Apoſtemations ſinuous Ulcers were afterwards made. Thus the work became difficult. I was conſulted. In the pulling out one of the Tents, a thin white Matter iſſued out in great quantity: my Brother Chirurgeon called it Milk; but I thought it Matter, and obſerved the Abſceſs to have begun deep in the body of the Glands, which, through length of time corrupting them, rendred the Swelling hard, and the Tent ſtopping in the Matter between Dreſſings had occaſioned that large diſcharge we then met with. The method of Cure conſiſted in the enlarging of that Orifice where the Matter ſeemed to be detained, and then to proceed with Deterſives, *&c.* They entertained me in the Cure, and I continued my Brother Chirurgeon. We began with the application of a Cauſtick to the Part round about the Orifice, ſtopping the hole with Lint; by which means in a ſhort time we made an eaſie way for the Matter, and ſaw no reaſon afterwards to think it Milk.

As the Eſcar ſeparated, a *Fungus* thruſt forth, which we ſprinkled with *pulv. præcipit. rub.* dreſſing up the Eſcar with *unguent. baſilic.* and the other Openings with *unguent. diapomphol.* and *cerat. dialthææ* over all. After a more full ſeparation of that Eſcar, we, obſerving the *Fungus* to riſe more large, applied a Stupe wrung out of a *decoct. ſummitat. abſinth. rutæ, menth. flor. roſ. rub. balauſt.* made in wine and water; and the while ſent for ſome *chalcanthum*, which we applied upon the *Fungus*, and Pledgits of *unguent. tutiæ* over the ulcerated parts. The ſecond day after we took off Dreſſings, and found an Eſcar made by the Cathæretick, which we thruſt off, and dreſſed it again with the ſame, and continued the uſe of Eſcaroticks. During thoſe applications we applied over the Breaſt the *Empl. è bolo* to reſtrain the Influx: but yet the *Fungus* increaſed upon us, and raiſed a Swelling between that and the other Orifices. Upon which conſideration we applied a large Cauſtick upon that Swel-

Swelling, which laid some of the other Orifices into this; then divided the Eschar, and dressed it up with Lenients, and covered the *Fungus* with Escaroticks, where-ever it began to thrust out, by which it was kept down. But after the separation of this latter Eschar, we seeing the *Fungus* great, and the way of extirpating it by Escaroticks slow, and fearing the ill consequences of it, I prest with my finger under it, and at once broke into it, and pulled it out in pieces; then fill'd up the place with *Merc. præcip.* and *mundif. Paracelf.* upon Pledgits, with the foresaid Emplast. over the whole Breast, and bound it up. The second day after that we opened it again. And by this same method often repeated we subdued the remainder of the *Fungus*, and raised a firm *basis* on which we incarned, with an addition of *pulv. rad. ireos, myrrhæ, sarcocollæ*, to the forementioned Mundificative; and then applied *cerat. agrippæ* over the Breast, and in few days cicatrized it with a smooth *Cicatrix*, the lips falling in by the benefit of nature, which was assisted the while by Traumatick Decoctions, *&c.* as in such cases is usual.

It happeneth very often, when we have cured one Breast, the other swelleth, from the abundance of Milk, and grows hard and apostemates. Sometimes we have both Breasts thus diseased at one time. Such was the case of a Gentlewoman in *Clerkenwel*: both her Breasts had been long swelled, and after apostemated, by reason of the pain; several Abscesses were made, and their Matter discharged by such Openings. In progress of time the Ulcers became sinuous and callous, with induration of the Glands. I was entertained her Chirurgeon, and began my work with Fomentations and Cataplasms discutient and resolving, as *rad. & fol. althææ, hyoscyami, summit. cicutæ, menthæ, rutæ, flor. sambuci, sem. fænug. lini*, &c. with *far. lentium, hordei, axung. porc. anatis, anseris*, &c. and in dilating the Orifices, and deterging with *mundif. Paracelsi*, with *Merc. præcip.* and *alumen*, as I saw cause. While I was thus trying my endeavours by the method abovesaid, new disturbances arose within, which put me upon the necessity of laying such places open by Caustick as might best serve for the discharge of Matter. After separation of the Eschar, I again deterg'd and healed them, as hath been shewed in such like Ulcers. 5. Observat.

How they are to be treated when they are strumous, scirrhous, or cancerous, you may see in their proper places.

Chap. V.

Of Abscesses and corrosive Ulcers arising from Distempers of the Uterus *in Child-bed.*

But it is not the Breasts only that are troublesome to Women by the frequent production of such painful Diseases. The *Uterus* is (though not altogether so frequently, yet) much more terribly affected in Child-bed, producing Fevers of very malignant and venemous natures, and soon making *Phlegmons* or worse Tumours, sometimes in the *Uterus* it self, and sometimes in other parts of the body, there being none of them on which the Uterine ferment hath not an influence. The exorbitancies or degenerations of that, whether from a hurt in Labour, from part of the After-birth left behind, from cold taken, or the *Lochia* stopped, do soon produce such virulent Distempers

in

in the bloud as make it caſt out a Tumour, either upon the Part it ſelf, or elſe outwardly upon the Muſcles of the body, where when they light they prove corroſive, ſometimes eating out the fleſh in which they lodged, which falls off in whole pieces, without that change of colour in the Skin which is in Gangrenes; inſomuch that ſometimes the Bone it ſelf is laid bare by them.

Cauſes. The *Cauſes* are, (as I have ſaid) hard Labour, the *Uterus* hurt, or part of the Secundine left behind, cold taken in Child-bed, and a prediſpoſition in the Humours by reaſon of their peccancy in quantity or quality.

Signs. The *Signs* may be taken from their Cauſes, and the manner of the Abſceſs may demonſtrate its malign nature and evil quality.

Prognoſtick. The *Prognoſtick* may be taken from the largeneſs or other qualifications of the Abſceſs, and the Symptoms that happen to the body thereupon. If the Tumour happen only from ſome little diſturbance done to the Womb of a perſon otherwiſe of a good Habit of body, the Cure is hopeful: if part of the After-birth be retained, there is no hopes of Cure till that be removed; nay, if it ſtay ſo long as to induce a putrefaction of the Part, it will be too late then to remove it.

If the body be cacochymical, the Tumours are apt to degenerate into very venemous and malignant Abſceſſes; which if they do not ſuddenly kill, do at leaſt produce ill-conditioned Ulcers hard of Cure, and for the moſt part mortal in the long run of the Diſeaſe.

Cure. In the *Cure* of theſe Abſceſſes you are to inform your ſelf how the Womb is diſturbed, and appeaſe that: and if any part of the After-birth be left behind, to endeavour the bringing that away, and by good Sudorificks, Cordials, *&c.* to expel the venome, and fortifie the ſpirits againſt the malignity that is thereby contracted, and to contemperate the heat and acrimony by Juleps and Emulſions.

The Swellings ariſing from theſe require to be treated in their beginning with moderate Repellents and Diſcutients. Afterward, accordingly as the Matter predominates, make way for its diſcharge; and cure them as in the Treatiſe of *Ulcers* is ſhewed.

1. Obſervat. A Young woman after Child-bed was ſeized with a great pain and Swelling in her left Groin and Thigh with Fever. Sir *Charles Scarburgh* and Doctor *Weatherly* were conſulted. They preſcribed Bleeding and lenient Purgatives, to evacuate the Humours; alſo cordial Juleps, *&c.* to contemperate the heat, and fortifie her ſpirits againſt malignity. I was alſo call'd in, and by moderate Repellents mixt with Diſcutients in Fomentations and Emplaſters with Bandage diſperſt the Humour in the Thigh, and reſtored that Part to its former temper: but in the mean time the Tumour increaſed in that Groin. I ſuppurated it after the manner of a *Bubo*, opened it, and endeavoured Deterſion: but the *Sinus* reaching down the Twiſt, the Matter could not be diſcharged without laying it more open, as in ſinuous Ulcers; by which method I cured it.

2. Obſervat. A Gentlewoman in Child-bed was ſeized with a Fever, and the ninth day complained of a pain in her right Foot. Sir *John Hinton* was the Phyſician, who treated her in the Fever, and had preſcribed Diſcutients, to breath out the impacted Matter in her Foot: but the pain increaſing, I aſſiſted, and ſaw the upper part of the Foot from the Inſtep to the Toes œdematous, but from the inſide of the Ancle to the middle of the Sole of her foot inflamed, and ſeeming to apoſtemate. We, doubting the ill conſequences of an Apoſtemation in that Part amongſt the Tendons and Bones, and where the Skin is uſually ſo hard and tough as our ſtrongeſt Cauſticks will difficultly penetrate, reſolved

solved to endeavour a restraint of the Influx, and so dry up the Humour affecting the Part: to which purpose we applied this; ℞ *far. hordei* ʒvj. *sem. lini pulv.* ʒvj. *flor. cham. sambuci pulv. an.* ʒiij. *flor. ros. rub. balaust. an.* ʒj. These were boiled in red Wine, with the addition *mell. ros. & ol. myrtill.* to the consistence of an Emplaster. It being night, she was laid to rest with an Anodyne draught.

The next morning I found the Patient somewhat relieved, and taking off the Dressings saw the Tumour and Inflammation less. I continued the way of dressing, and applied *Empl. è bolo*, as an Intercipient, about the Ancle and upper part of the Foot, and by Compress and Bandage dressed it up. By the application of these Medicaments we dried up the Humour in few days, and the Foot was seemingly well; but (whether it was for want of purging, there being some reason against it, or that the Humour was only restrained by virtue of the Dressings) there appeared again a Swelling on the Foot, and it apostemated in the Sole of the foot in three several places; which I opened by Caustick, to prevent the increase of Matter, and, dividing the Escars, gave vent to it, dressing them up with Lenients, Pledgits of *unguent. basilicon*, and the Emplast. as before. I endeavoured daily by Compress and Bandage to hinder the flowing down of the Matter: but the position of the Foot gave way, and it sunk lower, and put me upon the necessity of intercepting its farther descent to the Heel by applying another Caustick, which proved effectual to the discharge, so that the upper Orifices healed. But this last Escar separated slowly, and left the great Tendon bare. I furthered its separation by the use of *ol. terebinth.* with *unguent. basilic.* applied warm, and incarned the Tendon with a Sarcotick composed of a mixture of *pulv. ireos, myrrh. sarcocollæ, & Merc. præcipitat.* with *mel rosar.* and *terebinth.* and cicatrized the Ulcer with Epuloticks. After it was cicatrized, the Sole of her foot was so relaxed and tender, that upon the setting it on the ground it became very much subject to pituitous Swelling: upon which account I caused such a Fomentation to be made as is proposed in the Cure of *Oedema*, and put on a laced Sock, by which the weak parts were strengthned, and she cured.

3. Observat. A Lady in the Country of about twenty eight years of age, having gotten some hurt in Child-bed, was taken with a Fever, and about four days after was disturbed with a pain in her right Groin near the *Os ilion*, which in a few days after swelled with Inflammation, and became a large Tumour, reaching from thence over the Belly to the *Os pubis* like a rowl of White-bread. They sent for Mr. *Robert Morrey*, an expert Chirurgeon of *Chester*, who met Doctor *Smith*, an eminent Physician of *Shrewsbury*. The Lady did not permit them to see the Tumour, whereupon they could give no certain Judgment of it, but prescribed an anodyne Cataplasm, which her women applied. Some few days after the Abscess brake, and then Mr. *Morrey* was fetched again, and admitted to dress it. The Abscess was large, and discharged a great quantity of crude Matter making its way through the Skin by many eruptions. He purposed the laying them into one: but the Patient not admitting of it, the Matter insinuated it self deep amongst the Muscles of that part of the Belly. She was then advised to take a Journey to *London*, but would not yield to it. In progress of time the discharge of Matter rendred her lean and hectick: and at last, when she was almost wasted with her Disease, she was brought to *London* in a Litter. Sir *Fr. Pr.* and my self, being sent for, consulted with Mr. *Morrey*. We viewed the Ulcer, and found it seated above the *Os pubis*, stretching towards the *Os ilion*, discharging a purulent Matter. We dressed it with a proportionable Tent armed with *unguent. basilicon, Merc. præcipitat.* and *Empl. diachalcit.* It was upon consultation resolved that the *Sinus* should be laid

laid open in order to the Cure; which accordingly was ſnipt up about two inches with a pair of Probe-ſciſſors, and the inciſed Lips dreſſed with the common Digeſtive *ex terebinth. cum vitell. ovi.* We afterwards proceeded with Detergents, *mundif. Paracelſi*, &c. After which Mr. *Morrey* took his leave of the Lady, and returned to *Cheſter*. Whilſt I treated this ſinuous Ulcer, ſhe took her Vulnerary drinks and Balſamicks, alſo cordial Juleps made out of diſtill'd Milk wherein had been infuſed proper ingredients to diſpoſe her bloud to a better temper. But ſhe continued weak notwithſtanding all our endeavours, and the Ulcer would not cure farther than it was laid open. Therefore with one ſnip more I laid it open to the very end, and dreſſed it with Digeſtives, with good hopes of Cure. But after ſome days, finding the Matter not leſſen, I made a ſearch, and felt a *Sinus* penetrate into the cavity of the Belly under the *Os ilion*. Conſidering the original of the Diſtemper, I judged it to penetrate into the *Uterus* or neighbouring Glands, which I preſumed were much ſwelled and ulcerated, and would be a work of time; therefore propoſed to her the removing to ſome neighbouring Village, to take the benefit of the air. She did ſo, and while ſhe was there I cured the *Sinus* to the very penetration, and did hope that it might have been kept as a Fontanel. But it continued to matter very much. Upon which a Conſultation was call'd, wherein the deceaſed Mr. *Ed. Molins* adviſed a Salivation by *Merc. dulcis*. She aſſented unto it, and to that purpoſe ſhe was brought again to her Lodging in Town; and by a few Doſes of *Merc. dulcis* a Salivation was raiſed, by which the Matter leſſened, and the Ulcer dried. But a Soreneſs affecting her Mouth, as is uſual in Salivation, gave occaſion to a Chirurgeon, ſince dead, to inſinuate himſelf into the Lady's Family, where he inveighed ſo much againſt the proceeding by *Mercury*, as leſſened my credit with them; ſo that I was not capable afterwards to ſerve the Lady. Yet I prevailed ſo far, as that Sir *Alex. Fraſier* was conſulted; to whom (in their preſence) I repreſented the condition of the Patient, and the method of our proceedings. He approved of what had been given, and aſſured the Lady it was the only way to cure her; and that if ſhe would drink a good Decoction of *Sarſa*, with the Specificks uſually preſcribed in ſuch caſes, and afterwards put her ſelf into a diet of Aſſes milk, ſhe might enjoy a good health, and be obliged to acknowledge the good ſervice I had done her. But ſhe was prepoſſeſſed with the ſcandal of Salivating, and went out of Town a few days after, and, I ſuppoſe not following the method preſcribed, proper after *Mercury*, languiſhed under a Conſumption, as ſuch people generally do. No *Mercury* doing well, where the preſcribed method is not obſerved.

4. Obſervat. An Apothecary's wife living in my neighbourhood in the *Old-Baily*, after a hard Child-bed Labour, was ſeized with a Fever, and great pain in her right Thigh, from the Groin and Hip downward to the Knee, ſwelling the Member round, without Inflammation or diſcolouring the Skin. Sir *Fr. Pr.* was the Phyſician, and I think Sir *C. Scarb.* The Chirurgeons were Mr. *Bing* and my ſelf; and in the time of my Sickneſs Mr. *Meredith* a Chirurgeon dreſſed her. We fomented the Parts diſeaſed with *decoct. ſummitat. abſinth. majorana, beton. flor. roſ. rub. cham. meliloti, ſummit. anethi, ſem. lini, fœnug.* in wine and water, and made a Cataplaſm of the ſame Fæces with the addition of *far. fabar. orobi* and *lentium*, with *oxymel, ol. cham.* &c. But the whole Member being oppreſt and weakned by the Influx, it apoſtemated, and Matter was felt to fluctuate in ſeveral parts. We opened the moſt likely places by Cauſticks, and gave vent to a large quantity of purulent Matter. Then dreſſing the Eſcar with Lenients, we applied the Cataplaſm and rowled it up. She was ſomewhat relieved, but reſted ill that night. At the next dreſſing

dressing we enlarged the Opening with a pair of Scissors, and gave more way to the discharge of the Matter. Afterwards we continued our care in dressing her, and made other Apertions in parts more declining, and endeavoured Detersion by *mundif. ex apio*, &c. and by Injections made of *rad. aristoloch. rad. consolid. ireos, sarcocollæ, thuris, myrrhæ*, decocted in *aq. hordei* with *mel ros.* Many endeavours were used to cure these Ulcers; but the Matter grew more corrosive, and the flesh within dissolved, and we felt the Thigh-bone bare. The Humours all emptied themselves upon this weak Part; and, notwithstanding all our endeavours, the Patient languished, and died in the space of eight weeks.

I was also called to another, who in Child-bed laboured of an Ulcer in her left Hip; the Flesh was corroded round the breadth of the palm of a hand, the whole piece separated and fell off from the Bone, leaving it bare, and the lips of the Ulcer sordid without Inflammation or Tumour. I dressed the Bone with *extract. scordii* dissolved in *spir. vini*, and the Ulcer with *mundif. Paracels. cum Merc. præcipitat.* Traumatick Decoctions, Balsamicks, Cordials, Opiats, Juleps, were prescribed, and our work went on successfully a while; the Bone exfoliating from the edges; and the lips of the Ulcer digested and incarned with Sarcoticks *myrrhæ, aloes, sarcocollæ, cum syr. de ros. siccis.* But in the while a vehement pain seized the other Thigh, and it apostemated. We opened it on the out-side, and felt the Bone carious: we gave vent to a fœtid Matter. I treated it as hath been said in the former Observation: the Matter daily poured out, and the Abscess grew more hollow. To add to her affliction, she was tormented with a pain in her right Shoulder and in her left Knee, so that she was necessitated to lie upon her Hips, which exasperated them. At length the great discharge of Matter and extremity of pain wasted her, Oedematous Swellings arose in her Legs and Feet, and she languished and died. 5. Observat.

A young Gentlewoman was brought to Bed in the Country, and, being ill delivered, became indisposed with a Fever, and was pained in several parts of her body. I found her grievously afflicted with corrosive Ulcers lying deep in the flesh to the Bone: whole pieces of flesh separated from the *Os coccygis*, and came off, leaving the Bones bare as that of a Skeleton. The flesh also fell off in round pieces from some other parts of her body. Upon the left Side, a little below her Breast, whilst I was with her, I saw it begin with a round crack in the Skin, the compass of a Five-shilling-piece in Silver without Inflammation or Swelling, or other Matter than a little *Sanies*. It penetrated deeper every day, and in three or four days fell off from the *Periosteum* that covered the Ribs. I was much at a loss what to dress these Ulcers with while they were cracking, for they were dry and without tumefaction of the lips. What the actual Cautery might here have done, I do not know. I sprinkled *Merc. præcipitat.* in some places, and in others *alumen ustum* mixt with Præcipitate. I fomented some of them with lenient Decoctions, as *rad. althææ, consolid. fol. malvæ, sem. cydon. psyllii*, and the like. Others I treated with *decoct. absinth. rutæ, scordii, centaurii, cardui benedict.* made in a Lixivie, and Cataplasms were accordingly applied; but nothing check'd them. After the Skin and Flesh were separated, the remaining lips looked as flesh parboil'd; yet they afterwards digested, and became better-conditioned: but this creature had so many places of her Body diseased, as she had not one free part to lie on. Our whole endeavours (after she was dressed) were, how to contrive Pillows to give her ease. The womens work was, to quilt them several ways, and make this and that part hollow suitably to the case: some parts of the Pillows had to that purpose holes cut in them. Many ways were pro- 6. Observat.

poſed, but all to little purpoſe. She was always reſtleſs, frequently removing, and roaring for eaſe. I being quite tired, Mr. *Newman* a Chirurgeon was ſent for, and relieved me. I ſoon returned again, and ſtayed till I grew diſeaſed my ſelf, and with much difficulty returned home; then another Chirurgeon was ſent thither: and before I recovered of my own Sickneſs, I heard that ſhe died moſt painfully.

Chap. VI.

Of an Eryſipelas.

Deſcription. AN *Eryſipelas* is generated of a hot *Serum* in the Bloud, and affects the ſuperficies of the Skin with a ſhining, pale, red or citron colour, without Pulſation or circumſcribed Tumour, ſpreading from one place to another. It begins for the moſt part with ſome little Rigour, and is continued with a Fever.

Differences. This *Serum*, according to its ſeveral degrees of receſs from its natural ſtate towards that of Choler, doth produce ſeveral Diſeaſes. When the Receſs is leſs, and the ſharpneſs of it but little, then it doth only cauſe a reddiſh Bluſh upon the Skin: from which the name of *Eryſipelas* is, or at leaſt may be, derived; which is therefore by ſome great Authors reckoned amongſt the ſanguineous Tumours, becauſe its colour repreſents Bloud. But what will they then ſay of an *Eryſipelas* that appears yellow, as moſt of them do? why ſhould not this colour give it a new name from Choler? But I ſhall in this ſubmit to the minds of others. However I dare adventure to add, that a farther progreſs towards acrimony maketh an *Herpes*; and if the acceſs of acrimony be very great, it maketh an *Herpes exedens*.

Theſe Tumours are not alway ſimple, but do uſually mix themſelves with other Humours, and from thence get additional Epithets; as *Eryſipelas œdematodes*, *phlegmonoïdes*, *ſcirrhodes*, &c. But that which I propoſe to treat of is the *Eryſipelas à Sanguine bilioſo*, from cholerick Bloud, which affects onely the outward Parts, none of which eſcape its tenuity and ſubtilneſs, the Face, Head, Breaſt, Back, Emunctories, Thighs, Legs and Arms: nay, when Bones lie bare, (and ſo become as it were external Parts expoſed to Air) they are alſo ſubject to the ſame Malady; as we too frequently find in Wounds of the Scull and other Fractures.

The Humour it ſelf ſimply conſidered is very thin and ſharp, much affecting the Pores of the Skin, in which it uſually lodgeth; and in a great meaſure oweth its confinement thither to an occluſion of them, they being covered with a *Cuticula*, whoſe denſity hinders tranſpiration, from whence pain and redneſs ariſe: and oftentimes other Humours are invited thither, ſo that the Tumour enlargeth, and becometh compound. Whilſt it is ſimple, the Skin only is the ſeat of it, or the *Perioſteum*, or a Bone that lieth bare: when it is compound, it will affect the Fleſh alſo, and other neighbouring Parts.

Cauſes. The Matter of this *Eryſipelas* is already deſcribed to be a thin cholerick Humour. The Fountain of it is the Bloud, which by its capillary Arteries diſchargeth it upon that Part, as often as in bilious or malignant and peſtilential Fevers it is provoked thereunto. And this, if the diſcharge be ſufficient, is called

called *Critical:* if it be not ſufficient, but that Nature, having diſcharged part of the Matter, lieth down under the reſt, we call it *Symptomatical.* So alſo when it appears in the beginning of a Fever, it is then reckoned as a Symptome thereof. Sometimes the Fever is vulgarly eſteemed a Symptome of it, *viz.* when the *Eryſipelas* is firſt taken notice of, as if it had preceded the Fever: whereas indeed there is no *Eryſipelas* that hath not a Fever, either viſible or latent, going before it.

External Cauſes do alſo concurr to the production of an *Eryſipelas*; as Contuſions, Fractures, and ſuch like; alſo the heat of the Sun, Fire, ſharp Medicaments, *&c.* All which have this effect in cholerick Bodies, where the Bloud, being turgid with that Humour, meets with any occaſion of ſeparation of Parts. External Cauſes.

The *Signs* of an *Eryſipelas* are, a ſhining yellowiſh colour mixt with red here and there vehement, heat, with a pricking pain bliſtering the Skin, and creeping from one place to another. How it differeth from a *Phlegmon* may eaſily be diſcerned by comparing them: This lieth ſcattering in the Skin, ſcarce raiſing a Tumour; whereas the *Phlegmon* lieth deep amongſt the Muſcles, with elevation and circumſcription, and is of a deep red colour. Signs.

A ſimple *Eryſipelas* is not accompanied with cruel Symptoms: there is a Fever, but that diminiſheth as the *Eryſipelas* increaſeth, according to an Aphoriſm of *Hippocr.* When the Matter is ſent from within outward, the *viſcera* are relieved, and the Patient recovers. This we ſee frequently in great Diſeaſes. But *ab exteriori introredire malum*, the ſudden return of the Humour inward is a bad ſign, ill Symptoms frequently following, yea Death, eſpecially if the Emunctories were affected. Suppuration in an *Eryſipelas* is not good, according to *Galen* in his Commentaries on the ſame Aphoriſm, ſpeaking of malign *Eryſipelas*, which in ſuppurating do for the moſt part corrupt; as we ſee by the diſcoloured *Puſtulæ* which ariſe about them. Alſo an *Eryſipelas* upon a bare Bone is ill; and if a *Delirium* happen, the hopes is leſs. That *Eryſipelas* which goeth off by Tranſpiration is beſt. Prognoſtick.

In the *Cure* of an *Eryſipelas* you are to conſider the Habit of body: for whilſt it abounds with bilious Humours, there is no admitting of Repellents; and by Diſcutients you will increaſe the heat, and conſequently the Diſeaſe. Therefore we proceed in the Cure of this, as hath been ſaid in a *Phlegmon*, by Diet, Pharmacy, and Chirurgery. Cure.

Their Diet ought to be, as in hot Tumours, very ſparing, Grewels, Panadoes, and Chicken-broth, with cooling Herbs: their Drinks, Priſans, Barley-cream, Emulſions, and Juleps made of diſtill'd Waters, as *aqu. borrag. endiviæ, acetoſæ, lactucæ, portulacæ*, &c. *cum ſyr. è ſucco citr. limon. granat. rub. idæi, violar.* and the like; avoiding Wine in theſe Diſeaſes. The Ancients allowed only Water, and to weaker ſtomacks Beverage. Reſt and Quiet of mind is here to be deſired, and the Belly to be kept ſoluble.

Concerning Phlebotomy there hath been much diſpute amongſt Writers; but they all agree that the Patient be let bloud, in caſe the *Eryſipelas* flow upon Wounds and ſuch like accidents, or where it affecteth the Head or Throat. In the former of them it is allowed to prevent a *Phrenitis*, which otherwiſe might enſue; and in the latter a Squinancy, in which there is danger of ſuffocation. But if the *Eryſipelas* be ſimple, and but in the Skin, we are then by Purgations only to evacuate the redundancy of Humours, and prevent the ebullition of Choler. The Purgatives ought to be lenient, ſuch as have been preſcribed in a *Phlegmon*: as *caſſia, tamarinds, manna, cremor tartar. rhabarb.* &c. in Whey, or in Decoctions of Barley and opening Roots, with Syrups *è cichor. cum rhabarb.* and *de rhabarb. de roſ. ſolutiv.* alſo the *Elect. lenitivum*,

tivum. diacathol. diaprun. è ſucco roſ. Clyſters are alſo moſt proper in theſe Diſeaſes. Having thus emptied the bowels, you may make Revulſion by Friction, Cupping, *&c.* and by Vomit, if the *Eryſipelas* be in the neather Parts.

In your applications to the Part affected you are to conſider whether the *Eryſipelas* was from an internal Cauſe, or external; alſo whether it be great, or little. If it ariſe from an external Cauſe, you may ſafely apply Refrigerants without any preceding Evacuation, becauſe the Diſeaſe took its original meerly from the diſaffection of the Part, whether it was from the ſcorching heat of the Sun, ſharp Medicines, Contuſion, or Fracture, *&c.* and not from the peccancy of the Humours. Therefore in ſuch caſes you are obliged to appeaſe the pain in the firſt place by lenient and cooling Medicaments.

If from an internal Cauſe, then evacuation by Purgatives is always to precede, unleſs the *Eryſipelas* be remote from the principal Parts, or that the heat affecting the Member be vehement; in which caſe you ſhall not inſiſt upon Evacuation, but apply the milder Refrigerants to contemperate the heat, and afterwards proceed in evacuation of the bilious Humours.

Caution. But if it be in the Head or Face, you are then to be cautious in your Applications, (Abſtinence or a very ſlender Diet being the beſt remedy to begin with) and to forbear to treat the Parts affected till the *Eryſipelas* have a while made its progreſs, and in ſome degree ſpent its heat. But if ſomething muſt be done to ſatisfie the Relations and By-ſtanders, let the Topick rather be of an exſiccant quality than repellent, leſt ſome ill accident enſue.

We ſhall begin with an *Eryſipelas* proceeding from external Cauſes. The Medicaments generally preſcribed in ſuch caſes are of a cooling humecting quality, not too much aſtringent, leſt you dry the Skin, and prohibit Tranſpiration, and the Humour included become ſharp, corroding the Parts, or ſtir up Apoſtemation. The Simples are, *umbilicus Veneris, polygonum, plantag. trifolium paluſtre, portulac. pſyllium, ſempervivum, ſolanum.* The Compounds are of various ſorts. ℞ *ceruſſæ* ʒ viij. *lithargyr. auri* ʒ iv. *mucilag. ſem. pſyllii, cydon. extract. in aq. ſolani, ſucci ſolani, umbilici Vener. an.* ʒ iij. *aceti cochl.* iv. *ol. roſ. & myrtill. an.* ℔ ß. *ſevi vitulini* ʒ iv. *coq. ad ſuccor. conſumpt. deinde adde thuris pulv.* ʒ x. *ceræ q. ſ. fiat Ceratum. Ceratum Galeni* is alſo proper in theſe, ſo is *unguent. nutritum*, with a third part of *populeon.* Linen dipt in any of the aforeſaid Juices may be applied: but then they muſt be renewed as often as they dry; otherwiſe they may increaſe the heat, and excoriate the Part.

Caution. They who do uſe ſtronger Repellents ought to be careful leſt, in repreſſing the Inflammation, they do extinguiſh the natural heat of the Part, or ſtrike the Humour inward upon the *viſcera.*

In the *Eryſipelas* proceeding from internal Cauſes *decoctum ſalviæ* with a Solution of Caſtle-ſoap is a good Fomentation; and *ceratum Galeni* applied after it is ſufficient. In thoſe which are critical, a Cerote of *ol. olivar. cum cera alba* hath hitherto ſerved my purpoſe. If the heat be vehement, I renew the application daily; otherwiſe every other day ſufficeth: and as the Bliſters ariſe, I cut them, to prevent Eroſion. If afterwards they do excoriate, I dreſs them with *unguent. tutiæ,* or the following Unguent upon Pledgits of Lint, by which the ſerous Humour may be imbibed, and the Ulceration healed. If a Fomentation be neceſſary, that of *olibanum* and Myrrhe decocted in Wine may be uſed. ℞ *troch. alb. Rhaſ. & tutiæ pulver. an.* ʒ i ß. *plumbi uſti* ʒ j. *camphoræ* ∋ ß. *ceruſſæ* ʒ i ß. *ol. roſ.* ʒ vj. *ſevi agnini* ʒ iij. *ceræ alb. q. ſ. fiat Unguentum in mortario plumbeo per duas horas agitatum.* This will cicatrize them. In thoſe of the Head *Ætius* propoſeth *nidum hirundinis pulver. & cum melle mixtum.*

mixtum. He anointed the *Eryſipelas* with a feather, and delivereth it to us as a Medicament drying without any repelling quality. The Decoction of Coleworts is alſo commended to bath them. But, unleſs there be great Excoriation, it will be ſafer to leave the Cure of ſuch *Eryſipelas* to Nature, and evacuate and contemperate the heat by internal Medicaments. Nor ought we to be over-forward in our applications to the Face or parts about it: yet in my Practice I have commonly uſed *aq. calcis* with *ol. lini* well ſhaken together with good ſucceſs; as alſo theſe following, where I thought more Exſiccation neceſſary. Take diſtilled Vinegar in which hath been boiled a piece of *Lithargyr.* or *minium:* after it is ſettled, pour off the cleareſt of it, and filter it: put ſome of this into a glaſs, and add *ol. roſ.* to it, and ſhake them together. Or, in caſe of preſent uſe, take *ſaccharum Saturni*, and beat it up with the ſaid oyl. Either of theſe applied with a feather twice or thrice a day will ſerve your purpoſe.

The Accidents which attend *Eryſipelas* are the ſame as in a *Phlegmon*, and do happen through the unſeaſonable uſe of Repellents: therefore when you ſee the heat go off, and the Skin relax, or when the Patient feeleth himſelf eaſed of that burning and pricking pain, forbear the uſe of your Repellents, and apply Reſolvents and Diſcutients, to corroborate the Part, and reſtore it to its natural tone. For though the *Eryſipelas* do not ariſe with any circumſcribed Tumour, yet in its progreſs the Member is ſwelled, and remains ſo after the *Eryſipelas* is breathed forth, and for want of Diſcuſſion doth frequently become œdematous. Therefore to prevent that, it may be reaſonable to foment the relaxed Parts with *decoct. ſummitat. abſinth. flor. cham. ſambuci, roſ. rubr.* &c. in Wine, with an addition of Brandy. If an Emplaſter be neceſſary, ℞ *farinæ fabar. orobi, an.* ℥ iv. *ſem. fœnug.* ℥ j. *flor. ſambuci, roſ. rub. an.* ℥ i ß. *pulverizentur, coq. in hydromelite ad conſumptionem humiditatis; deinde adde ol. anethi & cham. q. ſ. fiat Emplaſtrum.* But if the *Eryſipelas* terminate in a hard Tumour, ℞ *rad. althæa, lilior. an.* ℔ ß. *ſem. lini & fœnug. an.* ℥ ij. *coq. in brodio capitis vervecini, & extrahatur mucilag. cui adde ol. ex pedibus bovinis, pingued. gallinæ, ol. amygd. dulc. an.* ℥ ij. *adip. agnin. & vitulin. an.* ℥ i ß. *medullæ* ℥ ij. *lithargyri aur.* ℥ iv. *ceræ q. ſ. fiat Ceratum.*

Correction of Accidents.

A Perſon of quality, labouring under ſome indiſpoſition of body and apprehenſion of a Fever, was by her Phyſicians advice let bloud about ℥ viij. in the left Arm. The ſecond day after ſhe felt that Arm pained, but moſt about the Bend of it near where the Vein was opened. I looked upon her Arm, and ſaw it was ſpred with a burning heat of a paliſh yellow colour, mixed with red here and there: the Skin was tenſe and ſhining, alſo rimpled and bliſtered down from the Bend of the Arm to the Hand: from the Elbow to the Shoulder it was of an inflamed red colour. The whole Arm was ſwelled by the influx of the Humour. This *Eryſipelas* was thruſt forth by the ſtrength of nature, and poſſibly it might be invited thither by the Bandage. However it were, the Patient was relieved thereby; ſhe acknowledging her ſelf more affected with the pricking and burning heat in her Arm than any Sickneſs: yet ſhe was not without ſome Fever. I thought it not ſafe to be too buſie with Repellents in this caſe: for though I might thereby have prevented the increaſe, and cured it ſooner; yet her Fever might have been by that means augmented, and her Recovery hazarded, ſhe being then with Child. Therefore I reſolved to give way for the Humour to ſpend it ſelf by Tranſpiration: to which purpoſe I fomented with a *decoct. ſalviæ* with Caſtle-ſoap diſſolved in it, and the while made a Cerote of *ol. olivar.* and Wax, and applied it in ſeveral pieces upon the Arm, with Bandage to retain it on; during

1. Obſervat.

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ring which her body was kept ſoluble with Lenients, and a Pearl-Julep preſcribed to refreſh her Spirits. Her Diet was Chicken-broth, Grewels, and the like. As the Bliſters aroſe, we ſnipt them, and to ſome of the biggeſt of them applied *unguent. tutiæ* upon Pledgits. During theſe Applications the heat went off from the Parts it had firſt affected, and ſpred up higher to the Breaſt and *Scapula*; it alſo affected the Hand and Fingers with Bliſters: but the tops of them being cut off, they healed, the Inflammation breathed forth in four or five days after, and ſhe recovered; but by reaſon of the Fluxion her Arm was ſwelled. For the removal of which I directed them to foment it with the Decoction preſcribed in the Method of Cure, by which, with the help of Bandage, it diſcuſſed. The roughneſs of the Skin was afterwards cleared with *Pomatum*.

2. Obſervat. A Youth about ſeven or eight years old, labouring under a complication of Diſeaſes from his Meſentery and Kidneys, was ordered by his Phyſician to have a Fontanel made in his left Arm: I made it, and left it well digeſted. About ten days after that Arm was overſpread with an *Eryſipelas* from the Shoulder to the Wriſt, here and there bliſtered. I threw out the Pea, and dreſt the Ulcer with *unguent. baſilicon* and *Præcipitate*, then fomented the Arm with Milk, applying over it *ceratum Galeni* with Bandage. By this I deſigned to give tranſpiration to the Part whilſt the Phyſician did treat the Fever. The next day I renewed the Dreſſings in his preſence, and the Ulcer being ſomewhat digeſted, I put in a Pea by his advice, and dreſſed the Arm as before, thereby curing the *Eryſipelas* in few days: but the Child remaining indiſpoſed, the *Eryſipelas* burſt forth again, and was alſo cured by the ſame method. Then the Patient was purged, and ſent into the Air near *Barnet*, where he drank thoſe Waters, and being thereby relieved, was brought back to his Parents. But within few days after he relapſed, and an *Eryſipelas* diſcharged it ſelf again on the ſame Arm, with a ſmall *Phlegmon* below the Elbow on the outſide. It ſuppurated, and was opened by a Cauſtick, and cured according to that Method. The *Eryſipelas* was alſo cured by the Cerote as before. After this the Child brake out of the Small-pox, and by the great endeavours of the Phyſicians was freed of that Diſeaſe; but languiſhed and died ſoon after. Upon the opening of his body, a Stone of the bigneſs and ſhape of an Almond was found in his left Ureter. We remembred the conſtant pain he had in his Back long before the firſt *Eryſipelas*, and thought that might be the occaſional cauſe of all theſe Maladies; *viz.* the continuation of pain cauſed many reiterated Fevers and Fermentations in the bloud, of which theſe forementioned Diſeaſes were the effects. A thing not rare in Chirurgery, to find the Small-pox produced by the pain of an Ulcer, as alſo to break out after the curing of them.

3. Obſervat. A Gentleman of about ſixty years of age, having laboured many years under an *Aſthma*, was ſeized with a pain in his left Side, and a Pleuriſie followed, with great oppreſſion in his Lungs, his former accuſtomed way of diſcharge by expectoration being ſuppreſſed. Doctor *Jaſper Nedham* was ſent for. By his preſcription the Patient was let bloud ten ounces: *Lohochs* and Pectorals, alſo opening Apozems, were preſcribed, and Venæſection repeated; by which the Patient was relieved. Then a Fontanel was cut in his left Arm, which being digeſted, the Phyſician and Chirurgeon were diſmiſſed. A few days after the Patient relapſed, and an *Eryſipelas* thruſt out the whole length of his Arm. I was fetch'd, and ſaw it ſwelled, the *Cuticula* veſicated, and ſhining with a burning heat of a citron colour from the Fontanel downward, but upward to the Shoulder it was more red. His Friends and himſelf thought the Inflammation to proceed through default of the Fontanel,

tanel, as not made in the right place. But that was an errour in them: for it was a tranſlation of part of that Humour which affected his Lungs, and was by the ſtrength of nature diſcharged upon this Part, to which the too ſtrict Bandage might poſſibly contribute; there being nothing more ordinary than ſuch diſcharges upon Fontanels: and it was well for him that it there disburthen'd it ſelf. The Phyſician and my ſelf concluded it a pure *Eryſipelas*, and that it required to be breathed forth: to which purpoſe I applied a Cerote of Wax and Oyl over all the Arm, and put a leſſer Pea into the Fontanel, with a Pledgit of *unguent. diapompholyg.* and *Emplaſt. diachalcit.* rowling up the Arm from the Hand to the Shoulder. The next day in dreſſing him I ſnipt the Bliſters, to let out the ſerous Humour, which might otherwiſe have ulcerated the Skin. The day after, obſerving the heat to go off, I put in a larger Pea, and dreſſed his Arm as I did the day before. In two or three days after, the Arm being as it were freed of the *Eryſipelas*, I fixed the Fontanel, (which he keeps to this day:) but the *Eryſipelas* ſpred to that *Scapula* and Clavicle, and ſo down to his Breaſt and Back. I dreſſed it with the ſame Cerote, and left him enough of it for his Servants to dreſs him with: during which Purgatives were repeated, and he was cured by the application of the ſaid Cerote.

4. Obſervat. A perſon of about ſixty four years of age, of a melancholick dry Conſtitution, was in the Winter-ſeaſon taken with a Quartan-ague, and after the ſecond Fit was ſeized with a pain in his left Leg, which increaſing, he ſent for me. The Leg was inflamed from the Knee to the Foot: the Inflammation of the Skin was of a more deep red colour than is uſually ſeen in a true *Eryſipelas*, it indeed partaking ſomewhat of a *Phlegmon*; but the Swelling was without circumſcription; it was tenſe and ſhining, made by a Tranſlation of his Ague: ſo that by this, if well managed, he was in a poſſibility of being freed of that. Therefore I propoſed by Lenients to moderate the heat, and breath out the Humour. Having ſatisfied him, that it was neceſſary to proceed deliberately with it, I treated it as in the former Obſervation hath been ſaid, and dreſſed it twice or thrice with the ſaid Cerote; and, having aſſwaged the heat and pain in it, I ſhewed his Servants how to dreſs it, and gave directions to the Patient in the regulation of his Diet, *&c.* and took my leave; adviſing them not to dreſs it too often, leſt upon ſo doing the Inflammation ſhould go off before the morbifick Matter were ſpent. From the time the Inflammation was made in his Leg he had no more Fits of his Ague, and his Leg became well without the application of other Medicaments. Upon the going off of the Inflammation I made him a Fontanel in that Leg, which he continueth ſtill.

5. Obſervat. A Gentleman of about ſixty years of age, of a full Body, with a ſhort Neck, and of a ſanguine Complexion, having long laboured under the apprehenſion of an Apoplexy, his Mouth having ſome while been a little diſtorted by a *Paralyſis* of his Cheek and Tongue, was let bloud in the Neck about ten ounces. The night after he was ſeized with a pain in his right Leg from his Knee to his Toes, with great Inflammation. For the appeaſing of which a Fomentation was brought him by ſome Pretender in Chirurgery, and applied with courſe woollen Stupes; one of which was bound upon his Leg. This Leg growing from that time more painful, I was fetch'd to him; when, taking off the Stupes, I found the Leg exceedingly inflamed and bliſtered, ſo that the Stupe ſticking in the Sores had excoriated the Part with great pain and Fluxion, which drew after it a ſmall *Phlegmon*. There was in this Patient great need of making a Revulſion from his Head; but this way by woollen Stupes was of too much danger to be continued. I wanted a Fomentation to cleanſe and refreſh the Part, and, being in haſte, cauſed ſome water to be

be heated, with a handful of Wheat-bran: which being ſtrained, I bathed the Member with a Sponge; then applied *unguent. tutiæ* upon Pledgits of Lint on the Excoriations, and a Cerote of Wax and Oyl over the Leg, and an anodyne Cataplaſm on the Tubercle. Theſe Dreſſings were renewed daily, till the Accidents were diminiſhed, and the Tumour ſuppurated. Then I gave a vent to the Matter, and proceeding by Digeſtion, made no haſte in the Cure, but expected rather that the *Plethora* ſhould be carried off the while by Purgatives, and the Patient relieved in his Head. The Phyſicians were of another mind, affirming that it would be time enough when his Leg ſhould be cured. I was therefore obliged to haſten: however I made him a couple of Iſſues *inter Scapulas*; and having well-near cured that Tubercle in his Ham, I left a Pea in it to keep it open as a Fontanel. Though that Leg was not ſo fit for it, by reaſon of the great Inflammation it had laboured under; yet I thought all little enough for Derivation, and would gladly have continued the Leg more ſore: but I obeyed my order, and left him cured of his Leg.

6. Obſervat. A Gentlewoman of about forty years of age, of a full Body, was taken with Rigour and Fever. After ſome days ſhe complained of a pain in her left Shoulder, and a pricking heat in that Arm. I was ſent for, and perceived it to be an *Eryſipelas* thruſting out: wherefore thinking ſhe might be much relieved thereby, I diſſwaded her from applying any thing to it. But the heat and pain increaſing, ſhe was adviſed to apply ſome cooling Ointment to it, which was thought excellent for Inflammations. She permitted it; and it did indeed check the Inflammation, but her Fever increaſed, with a *Delirium*. She was let bloud, cupp'd and bliſtered, and all things were done to draw back the Matter; but ſhe died.

7. Obſervat. A Man of about 27. or 28. years old, riding abroad with ſome Friends in hot weather, his body being heated by Good-fellowſhip, was ſeized with an *Eryſipelas* in his Face. I preſently let him bloud, and bathed it with a *decoct. ſalviæ cum ſapone Veneto*, and left directions to wet his Face often with it. I alſo directed a Clyſter to be given him that night, and a Cordial Julep upon occaſion. In the morning he was hot, and had reſted ill, and the *Eryſipelas* was ſpred to his Neck, and affected his left Ear with great pain, and reached up to his Forehead amongſt the Hair. I let him bloud again, and adviſed him to keep his Bed, and put himſelf into a Sweat with a draught of Poſſet-drink wherein had been boiled a little Harts-horn, a few opening Roots and Marigold-flowers. I alſo ſent him a glaſs of *aqua calcis* with *ol. lini* beat in it, with direction to anoint his Face with a feather, it being very much heated and ſwelled: he was alſo purged with Lenients, ſome of thoſe which have been ſet down in the method of Cure. By this method the *Eryſipelas* went quite off in 10. or 12. days. Then I bathed it with *decoct. malvæ, viol.* &c. to bring off the Scurf, and afterwards with Butter-milk, to ſupple it, and anointed his Face with *Pomatum*.

8. Obſervat. A Gentleman ſome years ſince, very curious and neat in wearing his Hair, was perſwaded to permit it to be boiled as it grew on his Head: by which doing an *Eryſipelas* was raiſed in the hairy Scalp. I let him bloud in the Arm, and purged him with Lenients; all things elſe were done for Revulſion: but, by reaſon of his Hair, there were no applications made to relieve the Part affected; whereupon a Suppuration followed; which put me upon a neceſſity of cutting it off, and applying Fomentations diſcutient and drying. I met with much difficulty in curing the Ulcer; but at laſt it was cured as a corroſive *Ulcer*, to which I refer you.

An *Eryſipelas* ariſing from an internal Cauſe affecting the Head requires the timely advice of a Phyſician, it frequently cauſing grievous Accidents, as

Fever,

Fever, *Delirium*, &c. and, being ſubject to great Ulcerations with putrefaction, doth frequently corrupt the Fleſh to the Bone. Sad inſtances may be given of theſe; (they ending for the moſt part in Death:) therefore it were to be wiſhed in ſuch caſes, that the Hair be timely cut off, for it contributes much to the Eroſion that happens.

An *Eryſipelas* affecting the Face of a Perſon of Honour, he conſulted Sir *Ch. Scarburgh* and other Phyſicians: they preſcribed Bleeding to the quantity of eight ounces, alſo Clyſters and lenient Purgatives to keep his body ſoluble. During the time of Inflammation he was feveriſh and indiſpoſed, alſo ſubject to Fainting and the like. In conſideration whereof he was adviſed to keep his bed, and ſometimes to diſpoſe himſelf to breathing Sweats with the Counteſs of *Kent*'s Powder: cordial Juleps were alſo preſcribed him. The *Eryſipelas* ſhifted from one part to another in and about his Face. They applied no Medicaments to the Parts diſeaſed. In the declination of it I ſaw it ariſe again freſh in his Forehead with a Swelling very high, only from the ſtreightneſs of his Cap: which I taking notice of, and adviſing it to be ſlackned, the Swelling ſunk again in few hours. I inſtance this only to ſhew how ſmall a thing will raiſe this diſturbance where the bilious Humours are in ferment. As his *Eryſipelas* ſpent it ſelf, they purged him, and he recovered. An *Eryſipelas* ſometime affecting one particular part of the Head or Face, as the Eye, Noſe or Ear, hath given much trouble to the Phyſician and Chirurgeon in removing it. 9. Obſervat.

It is not many days ſince I was called to one labouring of an *Eryſipelas* on her right Ear. It had been diſeaſed four or five days before I came: it was prodigiouſly ſwelled and inflamed; and, by reaſon of the acrimony of the Humour which was included between the Folds of the Ear and the Ear and Scalp, there was great Excoriation. I fomented it with *decoct. ſalviæ cum ſapone*, dreſſed it with that Preparation of *acet. litharg. cum ol. roſ.* above propoſed in the method of Cure, and left her ſome of it to dreſs her ſelf as occaſion ſhould offer; then let her bloud, and directed a Clyſter to be given her. The next day I purged her with Whey and Manna, and repeated it again and again. She lived a few miles out of Town, which put me upon the neceſſity of committing the Cure of it to themſelves, with Directions, and Medicaments ſuch as I have above propoſed. It dried up the external heat; but the Fluxion, which lay more internally, after all apoſtemated, and was cured accordingly. 10. Obſervat.

I was called in by my kind neighbour Doctor *Denton* to a young Woman who had been afflicted with an *Eryſipelas*, which had ſpred over all her Face: it had ſhifted often: at length ſhe was cured thereof by the ſaid Phyſician; yet was the right Eye cloſed with the Inflammation and Swelling from the reliques of that *Eryſipelas*, and the lower Lid apoſtemated, and the Matter was ready to make its way inwardly into the hollow of the Eye. We opened it by Inciſion, diſcharging a proportionable quantity of Matter; the remainder of which we digeſted and dried to a perfect Cicatrice by *unguent. diapompholygos*, diſcuſſing the Tumour in the mean while by Fomentations. 11. Obſervat.

Chap. VII.

Of a Furuncle or Boil.

Deſcription. *Furunculus* is a painful Tubercle of the bigneſs of a Pigeon's Egg, with a broad *baſis*, ariſing in a Cone. It is generally called a *Boil*, and in its ſtate is accompanied with Inflammation, Pulſation, and Tenſion.

Cauſe. It proceedeth from a groſs vicious bloud ſeparated from the reſt as unprofitable, and is caſt forth by the ſtrength of nature into the external parts of the body.

Differences. It differeth as it is greater or leſs, and as it affects the Skin or lies deeper in the Fleſh: it is alſo accounted malign, or benign. Thoſe that are more deep partake of the nature of a Carbuncle, and are miſtaken for ſuch, but are not of ſo aduſt or corrupt an Humour. *Furunculus* differeth alſo from a Carbuncle, in that this cometh to Suppuration, which the other never doth.

Signs. A *Furuncle* is in its beginning round, hard, and inflamed; and as it increaſeth it riſeth up with an acute head, and ſometimes a Puſtule: and then it is more inflamed and painful, (whence ariſeth that expreſſion, *As ſore as a Boil*,) eſpecially when it arrives at its ſtate, which is about the eighth or ninth day. If the Boil be malign, it is of a black dusky colour: there is alſo a Fever and other untoward Symptoms, and a thin *Sanies* iſſueth from it; and if it doth digeſt, it is with much difficulty.

Prognoſtick. *Boils* are for the moſt part without danger. The common ſort do predict Health, and frequently cure though nothing be applied to them; for they come to maturity and break of their own accord. But when they ariſe in nervous parts of the Arms or Legs, they affect the neighbouring Emunctory. In the Noſe or Ears they are very painful, and vexatious to cure.

Cure. The *Cure* conſiſts in the regulation of Diet and in Evacuation, likeas in a *Phlegmon*; only the Applications in theſe ought to be maturative, they always terminating in Matter, and being, as you may perceive by the toughneſs of the Matter, not capable of Reſolution.

The Maturatives are, *rad. & fol. althææ, malvæ, rad. lilior. uvæ paſſæ, ficus*, and all the emollient Gums, *galbanum, ammoniac.* &c. The Compounds are, *Empl. diachyl. cum gummi, de meliloto, tripharmacon, de mucilaginibus.* In the extremity of pain you may aſſwage the heat with this or ſuch like: ℞ *mucilag. ſem. pſyllii, althææ, lini, an.* ℥iß. *far. hordei* ℥ij. *ol. lilior. axung. gallinæ, an.* ℥j. *butyri recent.* ℥ß. *croci* ℈j. *cum vitell. ovi fiat Cataplaſma.* When the Tumour is broken, deterge that tough Matter with *mundif. ex apio*, and apply this or ſuch like Cerote over the Tumour; ℞ *ſevi cervini & vitulini an.* ℥iij. *axung. anſeris* ℥j. *terebinth.* ℥iß. *ceræ q. ſ. fiat Ceratum.*

1. Obſervat. IN a Man of about fifty years of age, of a healthy ſtrong Body, journeying to *London*, a Boil roſe upon his Wriſt. He applied to it an Emplaſter of Shoemakers-wax. When he came to me it was hard and inflamed. I dreſſed it with the aboveſaid Cataplaſm, by which it ſuppurated. As the Puſtule fretted off, a hot *Sanies* iſſued forth in a ſmall quantity. I dreſſed the Puſtule with *unguent. baſilic. cum vitell. ovi* upon a Pledgit, and continued the application of the Cataplaſm over all. The next day I took off the Dreſſings, and found the *Cuticula* caſt off, and the acute end of the Boil red, and a thick white

white Matter ſticking in it. I dreſſed it as before, and the ſecond day after again, and ſaw the Cone or head of the Boil broken off, and that thick tough Matter lying in it; which Matter likewiſe appeared round about through the ſeveral Eruptions it had made. I dreſſed it with *mundif. ex apio*, and applied the Cerote *Sevi cervini* over it. The ſecond day after I found the Openings broke one into another, and the tough Matter ſticking in them as in a Honey-comb. At that time the Ulcer was near as broad as a Half-crown. I continued the Mundificative and Cerote, and dreſſed it every other day. As this tough Matter digeſted out, it incarned underneath, and contracted, and healed as faſt, and cicatrized by the application of *unguent. tutiæ*, leaving little Scar, and no hardneſs, behind it.

2. Obſervat. Some years ſince I was ſent for early one morning to a Gentleman about forty years of age, who was extremely pained with a Boil on the out-ſide of his left Thigh. I pulled off the Emplaſter, which was of *galbanum*, and ſaw the Boil was in its ſtate, and ready to break. It was much inflamed, and the Puſtule was of a livid colour. I dreſſed the Puſtule with *ol. roſ. cum vitell. ovi*, and applied over the inflamed Boil an Emplaſter of *baſilicon*. I returned that night, and dreſſed it with the Cataplaſm above preſcribed, by which it ſuppurated, the *Cuticula* brake off, and a thin *Sanies* with ſome little Matter diſcharged. As the Boil came more to maturity, the Puſtule or head brake off, and made way for the Matter to digeſt out: and accordingly the Ulcer cured. An Empirick, angry that his Medicaments were thrown off, and mine applied, complained to a Perſon of Honour, whoſe Family I then attended, that this Gentleman laboured under a Carbuncle or Plague-ſore: but I cleared my ſelf to that Perſon, and ſhall ſhew you in its proper place, that a Carbuncle is another kind of Boil.

3. Obſervat. A Gentleman near ſeventy years old was ſorely afflicted with a *Furuncle* within his Noſtrils, and about his Noſe with great Inflammation and hardneſs. I fomented the diſeaſed Parts with *decoct. ſummitat. althæa, malvæ, viol. flor. chamæm. meliloti, ſem. lini & pſyllii*, and with a Syringe injected ſome of the ſame liquor into his Noſtrils, and applied the forementioned Cataplaſm over his Noſe. I purpoſed the letting him bloud in the Arm, but it would not be admitted by reaſon of his age: but by ſetting on Leeches behind his Ears I took away ſome bloud; alſo by bliſtering the Neck and Shoulders I endeavoured Revulſion, by Clyſters kept his body ſoluble, and continued the Applications, by which his pain was ſomewhat mitigated. After five or ſix days the Skin became thin, and a white tough Matter ſhewed it ſelf in ſeveral places within and about his Noſe, and gradually made its way through many ſmall Openings. I made it more way here and there with the point of a Lancet, and dreſſed them *cum vitell. ovi & ol. lilior.* and continued the uſe of the Fomentation, and applied the Cerote. I was much troubled to think what would become of his Noſe, the exteriour and interiour parts being all ſtuft with that clammy Matter, ſo that it would not iſſue out; and, when it ſhould, I doubted it would leave little coverture for the Cartilagues. To haſten it out, I daily dropt in a mixture of *mel roſ. cum ſucco apii* decocted; and, by conveying a big Tent dipt in the ſame into each Noſtril, I preſt the Matter outward, and ſometimes pull'd it away with my *Forceps*. It came out as if it had been broken pieces of the *Spinalis medulla*, and burſt ſome of the Openings into one another; which I was ſorry to ſee. But the Matter not being accompanied with acrimony, the hollowneſs filled up, and the diſtended Lips, falling near one another, agglutinated as the Matter digeſted out:

and by the Compreſſion I made with my Tents within the Noſtrils I inlarged them, and furthered the well cicatrizing of the Ulcer; which was effected in few days after with *Cicatrices* not unſeemly.

Chap. VIII.

Of Epinyctis *and* Terminthus.

THere are yet two ſorts of painful Tubercles which I have met with in my Practice: they are taken notice of by the Ancients under the names of *Epinyctis* and *Terminthus*; a couple of angry Puſtules, affecting the Skin in the Arms, Hands and Thighs. They do not differ much one from another, ſo may well be entred together.

Deſcription. The *Epinyctis* is of the bigneſs of a Lupin, of a dusky red, and ſometimes of a livid and pale colour, with great Inflammation and pain. It diſchargeth firſt a *Sanies*, then a bloudy Matter. *Terminthus* is ſomewhat leſs, of a blackiſh colour: it breaks and gleets, and within a day or two the Puſtule ſeparates, and comes away in a Slough, and from that time it digeſts and heals.

Cauſe. They both proceed from an exceſſive heat in the Bloud, but are without malignity or danger, and cure with little difficulty, if there be no error committed in Chirurgery.

Cure. The *Cure* conſiſts in Evacuation by Bleeding, Purging, and regulation in Diet, *&c.* as in a *Phlegmon*.

The external Applications commended to us by the Ancients are *fol. cicutæ, ſolan. plantag. cum polenta*; or, ℞ *uvas paſſas mundatas, & contuſas ſuperpone:* and to waſh them with *aqua ſalita*, to dry up the Matter, and prevent Eroſion; afterwards to dreſs them with a mixture of equal parts of *ſulphur viv.* and *ſpum. argenti cum vino*. I never was conſulted in theſe till they were arrived at their height, and then found Anodynes of moſt uſe, and applied ſuch as have been preſcribed in the former Chapter, and afterwards healed them with *unguent. tutiæ*.

1. Obſervat. of an *Epinyctis*. A Maid came recommended to me with the former of theſe Tubercles on the inſide of her Arm of the bigneſs of the greater ſort of Lupins, of a livid colour, with a ſmall acute Puſtule riſing up in the middle of it. It was accompanied with great Inflammation, affecting the Tendons with hardneſs in the Joynt. I preſcribed her that Cataplaſm *ex mucilag. ſem. pſyllii, althææ, lini*, &c. as in the Chapter of *Furuncle*, and embrocated the Tendons affected with *ol. roſ. & cham.* By this the Tubercle was brought near Suppuration, the Puſtule firſt brake, and diſcharged a thin *Sanies*. I dreſſed it *cum vitello ovi*, and about two days after the Tubercle it ſelf thruſt out a bloudy Matter. I dreſſed it with *unguent. baſilic.* added to the *vitell. ovi*, and applied *cerat. dialthææ*, and continued the Embrocation. The Matter from that time was daily better digeſted, and the pain diminiſhed: it was healed with *unguent. diapompholyg.* and *Empl. è bolo.*

2 Obſervat. of an *Epinyctis*. A young Gentleman having ſuch another on the outſide of his Wriſt was recommended to ſome body who opened it by Inciſion: but from that time

time it became more exceeding painful. He came to me with it hard and dry, and it had communicated its Anguish all along by the Tendons and Nerves to that *Axilla* with several Glands. I embrocated the Arm from the *Axilla* to the Knuckles of that Hand with *ol. ros. cum aceto*, and applied *Empl. è bolo* upon those Glands. To the Tubercle I applied *unguent. basilic. cum ol. ros.* spred indifferent thick in the form of an Emplaster, and dressed it so twice a day. I purposed the next morning to have let him bloud; but he was easier: and the same night I felt the Tubercle softer, and saw a bloudy Matter thrust out. From that time it digested better, and the Accidents diminished: in four or five days after the Glands resolved, and the Ulcer cured by the application of *unguent. tutiæ*, &c.

3. Observat. of a *Terminthus*

Of the latter sort there arose one in the Knuckle leading to the Fore-finger of a Gentlewoman of about forty years of age. An old acquaintance of mine called me to the sight of it. It was a small Tubercle inflamed round its *basis*, having a black head, and a long inflamed Streak passing from it to a Fontanel which she had on that Arm. Whether it did run upward from the Pustule to the Fontanel, and affect it, or descend from it to the Pustule, I know not: however it was, there were marks of communication from one to the other, and both were painful, and the Patient was indisposed with a Fever. In the Fontanel there was a small Orenge-pea, which I cast out, and put in a common one, and dressed it with Lenients, and an Emplaster to retain them on. I dressed the Pustule with *unguent. basilic. cum vitell. ovi*, and applied the forementioned Cerote prescribed in *Furuncle*. It suppurated the next day, and the head of it cast off in a Slough. I clipped off the loose skin from it, and dressed it with *unguent. tutiæ*, and in five or six days cicatrized it. During the Cure the Patient was afflicted with a *Diarrhœa*, which was purged off. After which she was hot and feverish, and troubled with a *Rheumatismus*; for which she was let bloud, and cured.

Chap. IX.

Of Inflammatory Tumours of the Glandules.

Under this Head I comprehend all those Tumours of the Glandules which have Bloud for their essential ingredient. They are usually reckon'd *Phyma*, *Phygethlon*, *Bubo*, *Parotis*. It is true that *Strumæ* and *Scrofulæ* do sometimes partake of Bloud and become *Phlegmonoïde*, &c. but that is not essential to them: witness the great numbers that never come to inflame or suppurate.

Phyma.

Of those that are essentially bloudy Tumours, though few of them pure *Phlegmons*, *PHYMA* is the first; which is an Inflammation affecting the Glandules under the Jaws. I mean the conglobate Glands: *viz.* neither the internal salivary, which is *Ranula*; nor the external, which is *Parotis*. The name of *Phyma* is also given to the *Phlegmonoïde* Tumours in and about the *Anus*, because of their near resemblance to glandulous Tumours, if they be not really such.

Description.

Cause.

They are caused by a mixture of impure Bloud with *Pituita*. Children are most subject to them; and in them they are hastned by their wearing of Stays, a way to keep their Head-cloaths on.

The

Signs. The Tumour is round and hard; in time of Suppuration it inflames, and is accompanied with Pulsation, Tension, *&c.* as in a *Phlegmon*, but doth sooner suppurate.

Difference. They have been taken by some for *Strumæ:* but they differ from a *Struma*, which, being contained in a *Cystis*, doth require to be eradicated by Escaroticks after Suppuration and discharge of its Matter; but these after discharge of Matter are cured either of themselves, or by the ordinary intensions of Digestion, *&c.* They are without danger, and easie of Cure.

Cure. The method of *Cure* is the same with that of the little *Phlegmon:* only these do not admit of Repellents; but from their very beginning must either be discussed, or brought to suppurate. And indeed all that I have ever seen did terminate by Suppuration. In the beginning we treat them with *Empl. diachyl. cum gummi*, *de meliloto*, and the like: or, in case of pain, with maturative Cataplasms, as hath been set down in *Phlegmon* and *Furunculus*; as *rad. althæa*, *lilior. sem. lini*, *psyllii*, &c.

1. Observat. A Gentleman fetch'd me one night from my house to see his only Child, about a year old, labouring of one of those Tumours under the right Jaw: it was round and hard, of a pale colour, and was supposed the *King's Evil.* I applied *Empl. diachyl. cum gummi*, and, in stead of the Stay, put on a folded linen cloath about it, to retain the Dressing After three or four days I visited the Child again, and saw the Tumour red, tending to Suppuration. I then dressed with *unguent. basilic.* and a Plaister; and the third day after, feeling the Tumour well suppurated, opened it by the milder Caustick, and discharged a Matter of good colour and consistence. I dressed it with Lenients, and after separation of the Escar disposed it to incarn by the common Sarcoticks, and by the use of the Vitriol-stone; and afterwards with *unguent. de lithargyro* cured it in few days.

2. Observat. Such another, but bigger, was that in a Girl of about nine years old, where Doctor *Rugely* was the Physician. She had been diseased with a Fever, and some Reliques of that Matter discharged themselves in a Swelling under the right Jaw as big as a Pullet's Egg. It was suppurated, and required vent, which I gave it by Incision; but could not cure it till I had applied a Caustick upon the depending part. The place not being very capable of Bandage, it could not be treated so advantageously when opened by Incision, and dressed with Tents: but after the laying it more open by Caustick, the Matter plentifully discharged, and the Abscess cured as the former. Many of these have been brought to me upon suspicion of the *King's Evil*: some of which my Servants have cured by my directions after the aboveſaid manner. You will meet with more of this Tumour in the Treatise of the Diseases of the *Podex.*

Phygethlon. Difference. PHYGETHLON is a Tumour affecting the glandulous parts under the Jaws, and is called *Panus.* It differeth from *Phyma*, in that it hath a mixture with *Bilis*, as the other had with *Pituita*, and lies round and flat as a Cake under the Jaws.

Cure. It is cured after the same manner as the other; so will not be worth the troubling the Reader with many Instances of it. I shall give you one, whereby you may distinguish it from *Phyma* and other Tumours.

Observation. A little Girl was brought to me upon a supposition of having the *Evil.* She had a flat, hard, round Tumour lying under her Chin and part of the right Jaw down towards her Throat: it was of a yellowish red colour, not unlike that

that in an *Eryſipelas*, but without Veſication. I directed one of my Servants to make a Cataplaſm *ex rad. lilior. alb.* &c. by the application of which it ſuppurated in three or four days, and diſcharged a well-digeſted Matter; during which the hardneſs reſolved, and it cured in ſeven days by the only uſe of that Cataplaſm.

THE Tumour called *BUBO* is an Inflammation of the Glandules in the Emunctories of the Groin or Arm-pit. *Bubo.*

It taketh its *Differences* from the quality of the Humour: and ſo they are either benign, or malign. The latter ſort are either venereal, or peſtilential. Differences.

The *Cauſes* of *Bubo* are internal, or external. The former are vicious Humours abounding in the Bloud or in the Nerves excreted ſometimes critically, ſometimes ſymptomatically. The external Cauſes may be pain affecting the exteriour Parts: ſo a Wound in the Hand or Arm, nay the Finger, will affect the Arm pit with a Tumour. You have an Inſtance of it in *Phlegmon*. A Cancer in the Breaſt doth the ſame. So an Ulcer in the Foot affects the Groin. In the Treatiſe of *Struma* you may ſee ſome Inſtances of it. Cauſes.

A Fontanel in the Leg diſtempered with pain cauſed a ſwelling of the Glands *in Inguine*. I was conſulted about the Swelling, and, enquiring of the reaſon of the ſudden Tumour, found the Fontanel diſturbed by walking much that day. I dreſſed the Fontanel with Lenients; and the Tumours of the Glands *in Inguine*, which were riſen like ſo many *Scrofulæ*, relaxed, and were ſcarce to be felt the next day. Obſervat.

A *Bubo* ariſeth in the Emunctories with pain, Inflammation, hardneſs, *&c.* as in a *Phlegmon*. If it was made by *Criſis*, then a Fever preceded: If there were none, then other Cauſes muſt be enquired after: as, whether pain preceded in ſome remote Part; alſo, whether it be peſtilential, or venereal. Signs.

Buboes that are neither malign nor contagious are not dangerous, if they ſuppurate kindly, and are timely opened: but if the contrary happen, they may degenerate into *Fiſtulæ*, and then are not without danger. If they proceed from a Tranſlation of Matter, (as ſometimes from the Parts near the head of the *Vena cava* and top of the Breaſt or bottom of the Neck into the Arm-pits, or from the lower parts of the Belly in the Glands and other Parts near the *Rami iliaci* in the *Inguina*) the Cure is difficult: and if the Lungs, above, or the *Uterus*, or Bladder, or *Rectum* below, partake in the Tumour, it is more deſperate. Prognoſtick.

A *Bubo*, according to the uſual method of Practice, ought not to be repelled: therefore in order to the Cure you are to conſider the Cauſe; and if it were by *Criſis*, you are either to breath it forth by Diſcutients, or haſten Maturation. If the *Criſis* be imperfect by reaſon of the weakneſs of the expulſive faculty, you ought by Attraction to help it forward, either by Cupping-glaſſes, or by the application of ſour Leven, black Soap, *ſterc. columbin. ſem. ſinapis, urticæ*, Figs, roaſted Onions, *&c.* Or, ℞ *cepam magnam, excavetur, & impleatur cavitas theriaca; deinde papyro involuta coq. ſub cineribus calid. & cum ol. ſcorpion. fiat Cataplaſma, addendo fermenti acer.* ʒß. *Miſc.* Or, ℞ *Empl. diachyl. cum gummi* ʒij. *picis Burgund. ammoniac. ſolut. an.* ʒß. *pulv. ariſtoloch. rot. rad. gentianæ, an.* ʒj. *cum ol. ſcorpion. fiat Ceratum.* All the hot Gums are hereto proper. But if it be ſymptomatical, it betokeneth *Plethora*, which ought to be removed by Bleeding. Purging is alſo neceſſary, both to carry off the quantity, and alſo to amend the evil quality of the Humour, *Plethora* in this caſe being uſually cacochymical: yet muſt not our purging be too violent, but only ſuch as may aſſiſt nature in making a due ſepa- Cure

ration

ration of the peccant Humours from the maſs of Bloud. And if it was cauſed by pain from ſome other Part, you ought by Lenients to aſſwage that pain, and by moderate Diſcutients mixed with Repellents ſcatter that Humour in the Emunctories. But if it will come to Suppuration, you ſhall haſten the Opening of it, and digeſt, incarn and cicatrize it, as is ſaid in the general Chapter of *Abſceſſes*, and will be ſhewed in the following Obſervations.

1. Obſervat. A Man of about fifty years old, of a full Body and ſtrong Conſtitution, was taken with a pain under his right Arm with hardneſs and Inflammation. I was ſent for, and, concluding it a *Bubo*, thruſt forth by the ſtrength of nature, applied *Empl. diachyl. cum gummi*, deſigning not to dreſs it again till it was near ſuppurated: but the Tumour increaſing with great pain and inflamed redneſs, I was put upon a neceſſity of applying anodyne Cataplaſms. Within few days after, it being ſuppurated, I opened it by Inciſion, and diſcharged a well-concocted Matter: then dreſſed it with *unguent. baſilicon cum vitell. ovi* upon a Tent, and applied an *Empl. diachyl. ſimpl.* malaxed with *unguent. dialthææ*, and afterwards dreſſed it with *mundif. Paracelſ.* Having ſo diſpoſed it to heal, I left Dreſſings, and after three or four days viſited the Patient again: when, obſerving the hardneſs digeſted off, and the Abſceſs fit to cicatrize, I left off the uſe of the Tent, and dreſſed it with a Pledgit of *unguent. diapomphol.* and the Cerote over it, and left them wherewithal to finiſh the Cure. But a few days after they ſent for me again. I found it ſwelled, and the Matter iſſuing from it thin and fœtid, much more in quantity than I could expect. I enlarged the Opening by Inciſion, and there came forth a Tent which in his Servants Dreſſing had ſlipt into the Abſceſs. From that time the Matter leſſened, and the Abſceſs cured without relapſe by the method aforeſaid.

2. Obſervat. A married Wife, of about thirty four years of age, having been long diſeaſed with Hyſterical Fits, with a complication of other Maladies, after many unſucceſsful attempts, was put into the hands of Sir *Fra. Pr.* who preſcribed *Merc. dulc.* ℈j. *in conſ. cichorii.* The ſecond Doſe ſalivated her ſixteen or ſeventeen days, whereby ſhe was relieved for ſome months: but then ſhe complained of a pain in her left Groin, which growing bigger, and raiſing the Parts about it into a Tumour, ſhe embrocated it by my advice with *ol. lumbric.* After a few days, the Tumour more increaſing with Inflammation and hardneſs, I applied *Emplaſt. mucilag.* with a third part of *Empl. diachyl. cum gummi.* The fourth day after, feeling the Tumour ſuppurated, I opened it by a Cauſtick, and diſcharged a proportionable quantity of Matter well digeſted; then dreſſed it with Lenients, to haſten the ſeparation of the Eſcar. While the Eſcar was ſeparating, a long Streak of red appeared ſtretching down from the *Inguen* along the middle of the Thigh toward the Ham. I embrocated it with *ol. roſ.* and applied *cerat. Galeni.* The next day I felt Matter in it, and ſaw the inflamed Streak ſtretch lower down. I applied a little of my milder Cauſtick upon the upper part of it, which was about three fingers breadth from the Tumour *in Inguine*, and gave vent to a little digeſted Matter, dreſſing it with Lenients. This while the Abſceſs in the Groin was in good temper, and diſpoſed to heal: but the aforeſaid inflamed Streak paſſed down to the Ham, and ſo along the *Muſculus gaſtrocnemius* to the great Tendon of it which leads to the Heel, and had Matter in it the whole length. In leſs ſpace than four days I made Apertions in it in five ſeveral places, all by Cauſticks; the lowermoſt in the lower part of the Calf of the leg. Theſe diſcharged the Matter, and were cured in few days (after the Eſcars were ſeparated) by the uſe of *unguent. tutiæ* and the like.

After

After some months she was seized with Convulsive twitches, which she observed to arise from the lower part of the Calf of the leg that had been affected with the Apostemations, and in the same place where the Matter before terminated. Upon which consideration the Physician prescribed a Fontanel to be made in the very Part; which accordingly I made, and kept open by a Pea, with an Emplaster and laced Stocking: by which means she was freed of her Fits, and enjoyed a tolerable measure of health a long time after.

So a Lady labouring under such like Fits, which began on the out-side of the *Os tibiæ* near the Shin, was cured by making a Fontanel in that place, when other Remedies failed. She continueth it to this day, I suppose.

In another we made a Fontanel between the Thumb and Fore-finger; and in another in the Breast; and in a Child behind the Ear: those Fits beginning there.

Parotis. Description.

PAROTIS is a Tumour in the Glandules behind and about the Ears, generally called the Emunctories of the Brain; though indeed they are the external Fountains of the *Saliva* of the Mouth, as modern Authors do agree.

Cause.

The immediate *Cause* is the Bloud offending in quantity or quality, as it hath admixture with the Ferment of the Part, or with other Humours. It also happeneth by an external Cause, as Bruise or Wound, whereby bloud is extravasated, and cast out into these Glands behind the Ear on one side or other, making a Parotid Tumour.

Difference.

They differ according to the Humour, and manner of generation. To the Humour; as whether the Bloud be mixed with Choler, Phlegm, or Melancholy. To the manner of generation; and so a *Parotis* is a Symptom of a Fever, or a *Crisis* of it. Those Fevers be usually malignant that cast out such Tumours: but sometimes a *Parotis* riseth simply.

Signs.

The *Parotis* is known by the Part it affects with Tumour, Pain and Inflammation, as having generally a great proportion of bloud mixed with other Humours, according as they are predominant. If it be malign or pestilential, there is Fever joyned with it. Whether it proceeded symptomatically or critically, the time of the Disease and Signs may demonstrate.

Prognostick.

A *Parotis* without a Fever is less malign or dangerous than that which ariseth with one. They are also less dangerous which attend long Fevers, than those which follow acute ones. Those which are thrust forth by a *Crisis* are salutary and easily cured: but those which happen after great Evacuations, or Fever, without remission of it, are pernicious and dangerous. Those which break forth symptomatically, and arise from vicious ill-disposed Humours, are of difficult Cure, and dangerous.

Cure.

In the *Cure* of this Tumour, you are to consider whether it be symptomatical, or critical, or of what kind of Matter generated.

If it be critical, and come out kindly, the business is then by Lenients to mitigate the pain, and further Suppuration; as hath been said before in *Bubo*. But whether it be symptomatical or critical, with little or much Tumour, malign or benign, you ought not to use Repellents, lest thereby you return the Matter from without inward. If the Inflammation be great, and the Accidents high, and Bloud abound, let it out, evacuating the Humour by lenient Purgatives, regulating the Patient's Diet, contemperating the Humours as in *Phlegmon*, and embrocating with *ol. lumbric. chamæm.* &c. But if through any defect nature do not thrust the Tumour out as you would, you may further it by Cupping-glasses and Attractives, as in *Bubo* hath been

ſaid. Or if the Matter be crude and viſcid, you may apply powerful Diſcutients, and with Emollients if you fear induration. But if after all it tend to Suppuration, then further it with Suppuratives; as, ℞ *rad. lilior. cepar. ſub cineribus coctar. an.* ʒiv. *mucilag. ſem. lini,* ʒiß. *far. tritic.* ʒiij. *axung. porcinæ, unguent. baſilic. an.* ʒiß. *vitell. ovor.* ij. *croci* ℈ij. *fiat Cataplaſma.* The Matter concocted, you are to give it vent, and proceed in the Cure, as hath been ſaid in the former Chapter of *Bubo.*

1. Obſervat. A Child aged about three years, by accident of a Fall, was ſeized with a Dizzineſs and ſome twitches of a Convulſion. A Fontanel was made in the Neck, and a Veſicatory applied *inter Scapulas:* but the Child was not thereby much relieved. A Tumour afterwards thruſt out behind that Ear. I made a Fontanel under it, and derived the Matter thither, and thereby the Child recovered.

In Concuſſions and Fractures of the *Cranium* theſe Tumours are frequent, and are diſcuſſed by *ol. cham.* &c. or the Matter may, as hath been ſaid, by a Fontanel there-under be happily ſpent.

The perſpiration in theſe Parts is to be regarded; for the checking of it hath cauſed Convulſions, yea Death, in little Infants.

2. Obſervat. A Gentlewoman aged about thirty years, of a ſtrong healthful Conſtitution, was taken one night with a pain behind her right Ear; it increaſed, and became very troubleſome. After three or four days ſhe ſent for me. The pain affected the Temporal Muſcle with heat and Tumour, and her Head with Twitchings and frequent Startings. She kept her bed, and was faint and weak: ſhe had neither purged nor bled. I felt her Pulſe ſmall, which I judged to be rather from oppreſſion than weakneſs, there being no conſiderable cauſe for the latter. I perſwaded her to be let bloud, which with ſome unwillingneſs ſhe yielded to. I opened a Vein in her right Arm: the bloud flowing out in a full ſtream, and being ſerous, I took away ten ounces; then embrocated the Tumour with *ol. cham.* warm, and dipt Wooll in it, and applied it upon the Part affected. A Clyſter was given her ſome hours after, and an Emulſion preſcribed her, of which ſhe drank a good draught that night, and repeated it at pleaſure. The pain continuing, a Cataplaſm was applied *ex rad. lilior. fol. malvæ, violar. flor. cham. ſem. fœnug.* made up with a few crums of White-bread, Saffron, Yolk of an egg, and *ol. ſambuci*; the Parts being firſt fomented with ſome of the Decoction, and part of the Liquor caſt in with a Syringe; Wooll alſo was dipt in the ſame, and put into the Ear. By theſe Applications an Apoſtemation diſcharged it ſelf thereout; yet the Tumour did not much ſlacken. Therefore I purged her with an Infuſion of *ſena, rhabarb.* &c. in which was diſſolved Manna, and *ſyr. roſ. pallid.* whereby ſhe was ſomewhat relieved. A day or two after I purged her with Whey, Manna, and *Crem. tartar.* and afterward repeated it: the Tumour the while diſcuſſed, her *Menſes* came down, and ſhe recovered.

3. Obſervat. I was ſent for to a Child of about two years of age diſeaſed with a large Tumour of an oval figure, hard and inflamed, under the right Ear. I embrocated the Tumour with *ol. lilior. & cham.* and directed a Cataplaſm to be applied of a few *malvæ & viol.* with the Crums of a White loaf boiled in Milk, and made up with *axung. porcin.* Yolk of an egg, and a little Saffron. And the day after, calling there again, and ſeeing the Tumour hard, I adviſed a Lilly-root to be roaſted under embers, and beat up with the remaining Cataplaſm: by which in two or three days it ſuppurated. I opened it by Cauſtick, and diſcharged a well-concocted Matter, and in few days after cured it by Digeſtion, *&c.*

Amongſt

Amongst the many diseased people that came to me at the publick Healing in *November* 1673. there was a Child of about two years of age diseased with a hard inflamed Tumour lying round behind the left Ear. I directed one of my Servants to apply an *Emplast. diachyl. cum gummi* malaxed with *unguent. dialthææ*: and the fourth day after, feeling it suppurated, we opened it by a Caustick about half an inch long in the declining Part, and gave vent to a well-concocted Matter. From that time it was dressed with *unguent. basilic.* in the form of a Cerote. Thus the hardness was resolved, and, as the Matter discharged, the Abscess healed within in few days with little or no pain or trouble: whereas if it had been opened by Incision, it must have been kept open by a Tent, and been rendred more painful and slow of Cure. After the Escar separated, a Pledgit of *unguent. diapompholygos* and a touch sometimes of the Vitriol-stone deterged, incarned, and cicatrized it. 4. Observat.

An old Gentleman, a Servant to the King below stairs, brought his Son to me, an infirm Youth of about thirteen years of age, having a large Tumour behind his right Ear arising from a crude Matter. It had been of some years growth. I applied *Emplastr. ad strumas cum stercore columbino*, to discuss it; but it heated: whereupon I applied a Cataplasm, one of the Suppuratives above mentioned, and concocted it; then opened it by Caustick, and discharged a mixt crude Matter. The Ulcer being sordid, I laid it more open, and dressed it with *mundif. Paracelsi*, with *alum. ust.* and *Merc. præcipitat.* and dressed the Escar and incised Lips with Digestives. After the separation of the Escar, I deterged the Abscess more powerfully by the use of the Vitriol-stone and Præcipitate, and afterwards incarned by the common Incarnative used in such cases, and cicatrized it smooth without any remaining hardness: and the Youth enjoys his health well since. 5. Observat.

A person of about fifty years of age, having long laboured under Scorbutical affections, was seized with a slow Fever; his Head was affected with Vapours, and his Spirits oppressed: during which a Tumour arose behind his left Ear, and reach'd down under that Jaw, growing big and hard, of a dark red colour. We endeavoured by discutient and emollient Cataplasms and Embrocations of various sorts; but it would not yield to any of them. We repeated Venæsection, and made him Fontanels *inter Scapulas*; Purgations were also repeated: but without success. I then applied an *Emplast. ad strumas*, and continued it without removal the space of six or seven days, supposing thereby the Tumour would suppurate or resolve: yet it continued hard amongst the Muscles. I repeated the use of the Emplaster; and the third or fourth day after, feeling the Matter fluctuate under it, I took off the Emplaster, applied a Caustick on the depending Part about an inch in length, divided that Escar, and gave a discharge to a crude serous Matter, then dressed it with Lenients, and applied *Emplast. de mucilag.* with a third part of *diachyl. cum gummi.* After separation of the Escar, I deterged with the Vitriol-stone and *basilicon* and *Merc. præcipitat.* and at other Dressings dipt them in *pulv. præcipitati.* Having thus deterg'd, I incarned, and by Epuloticks cicatrized it firm. During the while he was often purged, and Traumaticks and Antiscorbuticks were prescribed: but a hardness remained notwithstanding. Whereupon, doubting a Recidivation, I applied another Caustick the length of that Induration; and, having thereby penetrated deep into it, divided that Escar to the quick: and by separation of the Escar, and Digestion of the lips of the Ulcer, that hardness was breathed forth, and the Patient cured, and enjoys a good health to this day. 6. Observat.

Chap. X.

Of a Carbuncle.

Deſcription. A *Carbuncle* is a round hard Tumour ariſing ſomewhat like an angry Boil, of a dark red colour, accompanied with the higheſt circumſtances of pain and Inflammation, with many *Ulcuſcula* round about it, never coming to digeſtion till it hath corrupted the Part which it ſeizeth, ſo that the whole piece cometh away, if the Patient recover.

Original. It oweth its *Original* to a very high Degeneration of the Bloud into a Humour that is of a cauſtick quality, which ſuddenly ariſing ſeizeth the Part and corrupteth it, burning it as it were to a coal, from whence it hath its Name.

Cauſes. The *Cauſes* of theſe Degenerations of the Bloud are divers. The moſt uſual is a peſtilential Infection. But it is not ſeldom found that the Humours of ſome bodies do corrupt into ſo great a degree of virulency, as to cauſe ſuch a Tumour when there is no appearance of a Plague. Hence it is that they are divided into peſtilential, and not peſtilential: which diſtinction hath reference more to the antecedent Cauſe than to the Tumour it ſelf.

Signs. Therefore it is that, let the *Carbuncle* be of which ſort it will, the Symptoms attending it are much alike; *viz.* *nauſea*, vomiting, dejection of appetite, *tremor*, palpitation of the heart, frequent ſwouning, *delirium*, &c.

The peſtilent is diſtinguiſhed from the non-peſtilent by the greatneſs of the Symptoms, and the Infection that is in the air.

Prognoſtick. A great *Carbuncle* is more dangerous than a ſmall one, and the black is more pernicious than the inflamed red one. Thoſe that are in the Emunctories, Throat, or near any principal Part, have more of danger than thoſe that are ſeated remote in the Lims, eſpecially in the muſculous Fleſh. The moſt dangerous Symptom of all is the return of the Matter of the Carbuncle into the Bloud again.

Cure. In the *Cure* of a *Carbuncle* two things offer themſelves to our conſideration: 1. the antecedent Cauſe, the over-heated corrupt Bloud abounding in the Body; 2. the conjunct, or the Humour affecting the Part, and making the *Carbuncle*.

In order to the firſt, a regulation in Diet ought to be obſerved, and the hot Bloud fermenting in the body to be evacuated by Venæſection, eſpecially in thoſe that are not peſtilential, and that to fainting: but in the peſtilential it is judged not ſo ſafe, leſt thereby the malignity be drawn inward; but if you do let bloud, it muſt be in the beginning, whilſt the body is ſtrong to bear it. And foraſmuch as Bleeding ſcarce evacuates all the depraved Humours, therefore Purging is preſcribed, leſt by the abounding of corrupt Humours the native heat ſhould be extinguiſhed. But in peſtilential Carbuncles there is alſo a Caution required upon the ſame conſideration as in Bleeding: therefore we content our ſelves with Clyſters and lenient Purgatives, as *manna, caſſia, electuar. lenitiv. diaprun.* and the like; and proceed in reſiſting the malignity by *alexipharmaca*, *viz.* *theriaca*, *Mithridat. elect. de ovo*, *confect. alkerm. de hyacintho*, &c. The heat of the bloud may be contemperated by *ſyrup. è ſucco citr. limon. acetoſ. borrag. bugloſs.* &c. Or, ℞ *conſ. borrag. bugloſs. lujulæ, an.* ℥j. *ſpec. de hyacintho* ℥j. *cort. citr. conditi, nucis moſchat. an.* ℥iij. *cum ſyr. è ſucco citr. fiat Electuarium.* After a morſel of which, a draught of ſuch

ſuch like Julep may be drank and repeated once in four hours: ℞ *aquar. ſcordii, dracont. citr. an.* ʒiij. *ſpec. de hyacintho* ʒj. *aq. theriacalis* ʒiij. *ſyr. è ſucco citr. q. ſ. Miſce.* Alſo *Epiphemata* may be made *ex aquis meliſſæ, roſ. damaſc. borrag. nymphææ, cum aceto ſambucin. roſac.* &c.

In treating the Carbuncle as it relates to the conjunct Cauſe, you ought to conſider the ſtrength of the Patient; and if it be not likely to thruſt forth kindly, you are to endeavour by Attraction to aſſiſt nature in the bringing it outward, by the application of a ſuch like Cataplaſm: ℞ *ſummitat rutæ* M.ij. *fermenti acris* ʒij. *ficus vet. num.* viij. *piperis albi* ʒij. *ſalis com.* ʒiij. *Miſce.* Or that Cataplaſm propoſed in the Diſcourſe of *Bubo ex theriaca coct. in cepa excavata.* And, if there be occaſion, Cupping-glaſſes may be applied to help it forward. But if the Body be ſtrong and plethorick, and the Carbuncle thruſt forth with raging heat and pain, then that Cataplaſm preſcribed by *Galen, ex foliis plantag. pan. tritic.* decocted in Wine, may be of good uſe, it being by him commended to have the virtue moderately to repreſs the heat, and to digeſt. Others have propoſed an Emplaſter of Plantane-leaves, Galls, Lentils, and Wheat-bran, beaten up with Vinegar, and having thus mitigated its heat, they endeavour Suppuration.

But I never ſaw a true Carbuncle ſuppurate: therefore if the aforeſaid Medicaments avail not, I adviſe the ſcarifying or cutting deep into it, to give a breathing to the Humour; then dreſs it with ſome Eſcarotick that may reſiſt its malignity, as *troch. Andronis, polyidæ.* Some Authors have propoſed the Cauſtick. Without doubt the actual Cautery timely applied on ſome of them would ſave the Patient much pain, and ſhorten the Cure: for the malignity being thereby conſumed, the Eſcar might without much difficulty be digeſted, the heat about the Carbuncle alleviated the while by one of the above-mentioned Cataplaſms, and the Ulcer cured by the common method. But I refer this to the conſideration of the Chirurgeon; and ſhall give you an Inſtance of a Carbuncle to confirm what I have delivered.

IN the time of the laſt great Plague a Perſon of Honour, about ſixty years of age, of a groſs Body and highly ſcorbutical, was after dinner ſeized with a Rigour and Vomiting. His Phyſician Sir *Francis Prujean* being out of Town, he ſent for me. I ſuſpecting it to be the beginning of ſome malign Fever, deſired to be excuſed, his condition requiring rather a knowing Phyſician than a Chirurgeon: but I was afterwards fetch'd by a more powerful meſſenger, and found the Patient in his bed, vomiting, and in a burning Fever. I adviſed the giving him *Carduus* Poſſet to further his Vomiting; during which I ſent for a mixture of *theriaca Veneta & conſ. lujulæ*, and a cordial Julep of *aq. dracont.* &c. as it is above ſet down in the method of Cure; of the former I gave him a morſel, and ſome of the Julep after it, and adviſed his Servants to repeat the uſe of them once in four hours. He reſted very diſquietly that night, but in the morning I found him more calm. I let him bloud, and directed a Clyſter to be given that afternoon. As I was taking my leave of him, he deſired me to look upon his Back, it being very ſore. I ſuppoſed his Fontanels (which he had long continued *inter Scapulas*) were uneaſie; and, making way to look upon them, I found his Malady four fingers breadth beneath the right Fontanel. It was a dark red Swelling, about the bigneſs of a ſmall Cheſnut, lying very hard between the muſculous Fleſh and Skin, with many ſmall white Wheals about it of the ſimple *Herpes.* I was ſomewhat ſurprized at the ſight, and dreſſed it haſtily up with *unguent. baſilic.* and retired to my houſe to make ready that Cataplaſm of *Galen*'s, which I ſoon after applied, and continued the uſe of it ſome days: during which the Carbuncle increaſed

1. Obſervat.

in

in breadth and hardneſs, the *Ulcuſcula* alſo ſpred round it. Upon which conſideration I applied the ſuppurative Cataplaſm above mention'd, to endeavour Maturation; and on the *Ulcuſcula* and Parts about *unguent. nutritum,* to calm the burning heat. The Patient's Body was kept ſoluble by Clyſters and lenient Purgatives; the cordial Electuary and Julep were alſo frequently repeated, and his Diet was Broths with Wood-ſorrel and ſuch like Contemperatives boil'd in them. Nevertheleſs the Fever continued, and the Patient lay dozed and ſomewhat delirous, as alſo troubled with a *Singultus* and *Aphthæ.* Obſerving him daily more indiſpoſed, and the Carbuncle increaſing in bulk, and not likely to ſuppurate, I ſcarified deep into it, waſhed it with a Solution of *theriaca Veneta & mel Ægyptiac. in aceto vini,* then fill'd the Inciſions with *pulver. troch. polyidæ,* and applied a Cataplaſm over all *ex farina orobi* decocted in Oxymel. By the uſe of theſe Applications the *Ulcuſcula* dried, and the Carbuncle gleeted, but by the uſe of Lenients it digeſted after a few days; and as the Eſcar ſeparated, a well-concocted Matter diſcharged in great quantity daily more and more: yet the ſeparation of the mortified Carbuncle had left a very large Opening, and there appeared no conſiderable Swelling whereby one might judge the Cavity large. But feeling the Parts about, and preſſing my hand upon the right Clavicle and under that *Axilla,* the Matter poured out abundantly: yet theſe Parts were not inflamed during the growth of the Carbuncle. This put me upon a neceſſity of making an Inciſion proportionably, and, cutting off the flapping Lips to prevent the retention of Matter, I then dreſſed the Abſceſs with *mundificat. ex apio,* and the tender Lips with the common Digeſtive *ex terebinth. cum vitello ovi*; and applied a Cataplaſm *ex farina hordei, fabar. flor. roſ. rub.* &c. decocted in Oxymel, with Compreſs and Bandage. We had often propoſed the conſulting a Phyſician, but thoſe of his acquaintance were out of Town. Accidentally I met with Doctor *Tho. Cox* about the twentieth day near the Patient's houſe, and prevailed with him to viſit this Perſon. He ſaw the Abſceſs dreſſed, and the Patient labouring under the *Singultus* and *Aphthæ,* alſo ſo dozed as he ſcarce ſpake to the Phyſician. He preſcribed the Patient Cordials, and what elſe he thought neceſſary, and left ſeveral Preſcriptions for the Family. Until then they ſuſpected not the Diſeaſe; though the Servants that waſhed his Linen brake out in Blanes on their Hands and Arms as far as they were in the Soap-ſuds. From the time I made that large Opening the Matter leſſened, and the Cavities healed up by agglutination, the Ulcer incarned, and was cicatrized by the common Epuloticks.

2. Obſervat. The ſame year I was fetched to a Child at nurſe in *Weſtminſter,* that had been ſome days ſick of a peſtilential Fever, during which a Carbuncle thruſt forth in the right Breaſt a little below the Clavicle, of the compaſs of a broad Shilling; but it was then ſunk, and of a black colour. I divided it, and gave vent to a bloudy *ſerum,* and ſaw the Fleſh underneath it ſound: it was without Inflammation. I dreſſed it up with warm Digeſtives, and applied an Emplaſter of *Mithridate* on it; then gave it ſome *Elect. de ovo* diſſolved in a ſpoonful of *aq. theriacalis.* I came too late, for the Child died a few hours after.

CHAP.

Chap. XI.

Of a Paronychia.

Paronychia, so called by the *Greeks*, is a small Swelling about the Nails and ends of the Fingers, known amongst the *Latins* by the name of *Panaritium* : by the vulgar people amongst us it is generally called a *Whitflaw*. Description. Names.

There are two sorts of *Paronychiæ* : they both affect one and the same Part, and are frequently taken one for the other, but are very different in their Symptoms. We shall distinguish them by the names of benign, and malign. The former rise superficially under the *Cuticula*, and come suddenly to Suppuration : whereas the malign *Paronychia* lieth deep amongst the Ligaments and Tendons, and is slow in coming to maturity. I suppose it is that which is commonly called a *Felon*. Differences.

The benign or milder Species takes its Original from a bilious hot *serum* : the other is commonly said to proceed from Aduſtion in the Bloud, with a mixture of Choler or salt Phlegm. Causes.

Paronychiæ may truly be reckoned amongst the Inflammations, they arising with great pain and burning heat, with Pulsation and Tension. The benign comes soon to maturation, and may be discerned by change of colour in the *Cuticula*, the Matter appearing under it as in a Blister. Signs.

The Signs of a malign *Paronychia* are an intense vehement pain deep amongst the Ligaments and Tendons, with Fever, Fainting, and a slow Suppuration.

The *Prognostick* may be made by what hath been delivered of them, *viz.* that the benign cometh soon to Suppuration, and is as easily cured : the worst danger that can behappen it is but a loss of the Nail. Prognostick.

The other, which lieth deep, is of a malign quality ; and, if it be not speedily removed, will corrupt the *Periosteum*, rot the Bone, and soon extend its putrefaction to the next Joynt, and threaten the welfare of the Hand.

In the *Cure* of *Paronychia* Authors generally make no distinction. They propose evacuation by Bleeding, and the observance of a slender Diet, as in a *Phlegmon*. Concerning Topicks, they commend Repellents in the beginning of the Fluxion, but not with much astringency, (unless as Intercipients upon the Parts above) lest the Matter should thereby be impacted in the Part, and corrupt the Bone : yet the Medicaments they then prescribe do all partake of that quality ; as, ℞ *ol. ros. & myrtill. cum succo solani & bol. Armen.* and, ℞ *gallas virides cum aceto mixt.* Others mix Lenients with them, as that of *succ. solani, plantag. portulac. umbilic. Vener. mucilag. sem. psyllii, cum dictis succis vel aceto extract.* to which they add *bol. Armen. gallas & camphor. cum ol. ros. & myrtill.* and *unguent. alb. popul.* &c. Others mix Discutients with Repellents : as that of *Paracels. galla cum melle mixta* ; or, ℞ *ol. mastich. ol. olivar. matur. an* ℥j. *antimonii crud.* ℥ß. *thuris* ℥iij. *resin. pini & ceræ, an. q. s. Misce* ; or that *sulphuris vivi, fuliginis allii, sal. com. sem. carui, an. p. æq. Misce.* In case of pain, ℞ *fol. malvæ, hyoscyami, rad. althææ, sem. psyllii, lini, fænugræci :* and these are Suppuratives, of which divers others are prescribed by them. All which are proper in the benign *Paronychia*, as they are set down, and some of them may be applied to the malign one in its very beginning ; but while you endeavour Suppuration in it, the Bone will certainly corrupt. Cure. The method of the Ancients.

corrupt. Therefore if the pain go not off by the firſt Applications, give a breathing to the Humour by cutting deep into the Part moſt affected, and then dreſs it up by ſuch like Lenients as follow: ℞ *ſem. lini, fœnug. pulv. an.* ʒß. *mucilag. ſem. pſyllii* ʒj. *vitell. unius ovi, croci, an* ϑj. *pingued. gallinæ aut butyri recent. q. ſ. fiat Cataplaſma.* Or, dreſs it with *unguent. baſilic.* by which the Wound will cure, if the Humour hath not altered the Part: if it hath, proceed as ſhall be ſhewed in the following Obſervations.

I ſhall begin with the benign or milder Species, commonly called a *Whitflaw*. It is a Diſeaſe ſo common, that I think there is none but knows what it is, and how to cure it. Yet I ſhall give you two or three Inſtances, the better to diſtinguiſh it from the other.

Paronychia benigna. 1. Obſervat.

A Child of about four years of age was brought to me while I was dreſſing a Patient in a Noble Family. The Child was pained with a ſmall red Swelling about the inſide and root of the Nail of one of the Fingers. I applied a little *cerat. Galeni* upon it. The ſecond day after I found the Matter ſhine under the Skin, and the Swelling lie like a Bliſter about part of the Nail. I opened it, as I had often ſeen the common people, by paſſing a Needle through the Skin: it diſcharged a thin yellow Matter, and by two Dreſſings with *unguent. baſilic.* it cured.

2. Obſervat. Such another I met with in the Finger of a Friend lying upon one ſide of the Nail. I opened it with a Lancet, and after the diſcharge of the Matter pared away that ſide of the Nail, and dreſſed the Bliſter with a Pledgit of *unguent. tutiæ*. Himſelf cured it with ſome of the ſame in two or three days.

3. Obſervat. A Gentleman came to me not long ſince with one of theſe very large upon the pulp of one of his Thumbs; it lay like a great Bliſter. I let it out with my Lancet, and dreſſed it up with *unguent. baſilic.* and gave him ſome of the ſame to cure it.

4. Obſervat. Another I ſaw lie under the fore-part of the Nail and Finger, very painful for the while, but it quickly ſuppurated by Lenients. The Matter being let out, and part of the Nail cut away, it cured in a few days. But when this happens in ſcrophulous Children, or where acrimony abounds, the Cure is vexatious enough: but it doth ſeldom corrupt the Bone, nor is the pain conſiderable compared with that which paſſes under the name of a *Felon* or malign *Paronychia*; of which I ſhall now give you ſome Inſtances.

Paronychia maligna. 1. Obſervat.

A Gentlewoman came to my houſe one night late, complaining exceedingly of a pain in the pulp of one of her Fore-fingers. I looked upon it, and felt it hot, but ſaw nothing of Swelling whereby I could judge it ſo ill. She ſeemed ready to ſwound with the pain. I propoſed the making Inciſion into it to the Bone, not imagining ſo fearful a creature would have permitted it; but ſhe readily aſſented: whereupon I preſently made a Puncture deep in the moſt pained part to the Bone, and ſuffered it to bleed while I made a Dreſſing of *unguent. baſilicon* to apply upon it with an *Emplaſt. è bolo*; which being applied, ſhe complained of the ſmarting of the Wound, but ſaid it was nothing to the pain ſhe felt before. The next day I waited upon her at her Lodging: ſhe had ſlept well that night and in perfect eaſe. I took off the Dreſſing, and ſaw the Wound agglutinated, then dreſſed it as the night before, and from that time dreſſed it no more. After the ſame manner I have freed many in the beginning of the Diſeaſe.

2. Obſervat. A young Fellow attending in a Nobleman's houſe was ſeized with a grievous pain in the pulp of one of his Fore-fingers, and came to me bemoaning his condition. The Part affected felt hot, but ſeemed neither inflamed nor much

much ſwelled. I preſt in the point of my Inciſion-knife into the place where he was moſt pained, and in the drawing out the Knife enlarged the Wound a little. There ſeemed to iſſue out only a little Bloud, which I permitted a while to flow, then dreſſed it up with a Pledgit of *unguent. baſilicon* and an *Emplaſtr. è bolo.* The ſecond day after I met him, took off the Dreſſings, and ſaw the Wound cured: and he ſaid the pain went off that night he went from me.

Another Young man ſerving in a Noble Family was afflicted with a pain in the pulp of one of his Thumbs, and after three or four days trial of ſeveral Applications he was commended to me. His Thumb being inflamed and ſwelled, I made Inciſion into it to the Bone: this not only bled, but gleeted a few drops. I dreſſed it with Lenients, and rowled it moderately, hoping thereby to agglutinate it. The ſecond day after I took off the Dreſſings, and, finding the Wound open and undigeſted, dreſſed it up with a Doſſil dipt in *Merc. præcipitat.* with Emplaſter and Bandage. The third day after I dreſſed it again. The Doſſil came off with a Slough, and left the Ulcer diſpoſed to Digeſtion. I dreſſed it with a leſs Doſſil ſpred with *baſilicon* and Præcipitate, with a Pledgit of *unguent. diapompholygos*, and an Emplaſter over it. From that day it digeſted, and cured in ſix or ſeven. The occaſion of its not healing by Agglutination, as the others did, was from the alteration (I ſuppoſe) the *Ichor* had began to make in the bottom of the Wound: which may, I think, enough ſhew the neceſſity of laying theſe Tumours open more timely, unleſs they have diſcovered ſome other way of diſcuſſing the Humour; which I confeſs I have not been able to make out, though I have tried many Medicaments commended in ſuch caſes. *Foreſtus*, in his fifth Book and ſixteenth Obſervation, ſets down ſome *arcana* in the Cure of it: but after the trial of them, we find him foiled in the Cure of his Patient, and the ſame Patient cured by another Chirurgeon, by the laying it open, and taking the rotten Bone out. 3. Obſervat.

I ſhall now ſhew you what they are when they have been longer treated by Suppuratives, and the like.

A Servant to an Officer of the Court was brought to me ſorely afflicted with one of theſe *Paronychiæ* in his Fore finger by the ſide of the Nail. He had been under hands that had treated it with Medicaments till the putrefaction within had rotted the Ligaments and *Perioſteum*, and bared the Bone of the firſt Joint, and apoſtemated it to the third Joint. I laid it open by Inciſion from the very end of the Finger downwards the length of the Abſceſs, and dreſſed it with *Merc. præcipitat.* applying Doſſils over it ſpred with a Digeſtive to keep the Lips of the Wound diſtended, and with long ſnips of *Empl. diachalcit.* rowled it up, leaving way between for the Matter to diſcharge, over which I repeated a moderate Bandage to preſs out the Matter in the Part, and reſtrain the Influx, and reduce the Finger to its former ſhape. The third day I dreſſed it again, and, finding the Ulcer ſordid and over-grown with looſe fleſh, rubb'd it with the Vitriol-ſtone, filling the Ulcer again with *Merc. præcipitat.* and dreſſed it up as before. By this method I deterged the Ulcer, and with Sarcoticks incarned it, and by the application of Epuloticks with Bandage cicatrized it, and reduced the Finger to its natural ſhape, ſo that he recovered the uſe of it. 4. Obſervat.

A Lady commended a Poor woman to me, who brought her Child, a little Boy of about five years of age, grievouſly diſeaſed of a *Paronychia* on the very end of the Fore-finger and under the Nail. The end of the Finger was rotted away, and the Bone ſticking out bare: the Nail was alſo rotten, and heaved up by the putrefaction underneath it. I took hold of the Nail with 5. Obſervat.

my *Forceps*, designing to cut it off, (it lying in my way;) but it separated off from the root more easily. I also pinch'd off as much of the end of the Bone as was naked, rubb'd the loose Flesh and the remaining Bone with my Vitriol-stone, and applied a Pledgit of Lint dipt in a Solution of *tinctur. vitrioli* next the Bone, then fill'd the Ulcer with Præcipitate, laying over it an *Emplastr. unguent. è lithargyro* with a moderate Bandage. The third day I dressed it again, and found a separation of the corrupt flesh: but the Matter was more than I could reasonably expect from such an Ulcer. Whereupon I made a farther search, and found a *Sinus* running the length of the second Joint. I presently made an Incision that length, and fill'd up the Opening with Dossils dipt in Lenients, then dressed the more corrupt parts with the same Medicaments as before, and rowled it up. The third day after I took off the Dressings, and found the Bone covered with its *Periosteum* in the *Sinus* I had last opened: but it was full of a loose Flesh the whole length. I dressed it as I had done the former; the Vitriol-stone being of great use in these Ulcers which so abound with luxurious Flesh amongst the Tendons: for by it the corrupt Flesh is dried up without offending the Nerves, Tendons, or other sound Parts; and the Ulcer may be deterged, according as it is touched, more or less; and the Bone it self, where it is bare or carious, may be dried by it, and disposed to moulder off. Where the *Hypersarcosis* was great, there I also sprinkled it with Præcipitate, whereby I more speedily freed the Ulcer of its putrefaction; and by the application of long snips of Emplaster rowled about the Finger I restrained the influx of Humour. By moderate Compression I restored the Finger to its true shape, and by the common Epuloticks cicatrized it, without more loss of the Bone than what I cut off at the first Dressing, the Stump exfoliating insensibly.

6. Observat. Whilst I had the honour to attend the King at the *Hague*, a Woman related to one of the *Princess Royal*'s Servants had been lamentably afflicted with one of these malign Ulcers in the Fore-finger of her right Hand: by reason of the long application of Suppuratives the Bones of the first and second Joint were rotted, and the putrefaction had spred round, and corrupted their Ligaments. I made Incision the length of the Abscess, and upon farther search feeling the Bones not onely rotten, but loose, I took them both out, and separated the Nail from some part of the Ligament to which it adhered; then deterg'd the Ulcer by filling it with Præcipitate, dressed the Lips with Digestives, and rowled it up. After I had thus deterged it, and by Compresses and Bandage reduced the Finger to a better figure, I left off the use of Dossils, and by long pieces of Emplaster brought the Lips together, and left the Finger well shaped, and a Nail thrust out again: but it, having lost its Supporters, was of little use. Whether afterwards any *Callus* thrust out to supply the place of the Bones, I doubt: but in strumous and some other Ulcers you may see how such defect hath been recompensed.

7. Observat. Some years since I was fetcht into the City to a Gentlewoman who was much afflicted with one of these malign Ulcers in the very first Joint of one of her Fingers. The Chirurgeon that attended it had been suppurating it, but the while the Bone corrupted. I proposed the laying it open by Incision, and to have proceeded by Detersion. She assented to it, and accordingly it was laid open. After a Dressing or two I left it to the Chirurgeon. But about ten days after she sent for me again, and was much unsatisfied in the proceedings. I looked upon it, and, seeing it was like to be a tedious and an unsuccessful work, advised the cutting off of her Finger: which, after some deliberation, she submitted unto.

8. Observat. The Wife of a Bitmaker attending the Court, whilst we were at *S. Johnston*'s in *Scotland*,

Scotland, was seized with a pain in the end of her Fore-finger, and desired my advice. *I* told her the nature of the Disease, and shewed her the necessity of making a Puncture with an *Incision*-knife into the pained Part: but she went murmuring away from me, and made use of some other, who endeavoured to suppurate it. *In* the while *I* made her a visit or two to perswade her from that method; but she would not permit me to open it. Some while after, the putrefaction being increased, it made its way out, and discharged some of its *Sordes*. This they called Suppuration, and promised themselves a speedy Cure, censuring me for advising her to open it before Maturation. But in these Abscesses the Suppuration is false, and rarely happens till the Bone and Ligaments are corrupted: which after a while she finding too true, made friends to me; at whose desire *I* visited her, and found the Finger miserably swelled, and the Ulcer sordid, the Bone lying rotten in it. *I* dressed it with Detersives, and offered to her consideration, whether she would permit the Ulcer to be cut open, (for Caustick's are of ill use in Ulcers with *Caries* in these Parts,) and dressed with such Medicaments as might cleanse it, and dispose the Bone to exfoliate, which would be a long work, and uncertain; or that she would without more delay permit it to be cut off, and thereby have it speedily cured. After some demurr, she submitted to the latter; and I cut it off with a Chisel, dressed up the Stump with *pulv. Galeni cum albumine ovi*, and rowled it on. The second day after I dressed it *cum terebinth. & vitell. ovi*, &c. and digested it; and afterwards I incarned it with the common Sarcoticks, and cicatrized it in few days with *unguent. desiccat. rubr.* and Pledgits dipt in *aqua calcis*. She gave me a great many good words for the ridding her of such a painful Finger, but never forgave me the neglect (as she called it) of dressing it with Suppuratives; she supposing that I could so have cured it, and would not. It was a crime which might be the easilier forgiven her, since we meet with it so often in some of our own Profession.

Chap. XII.

Of Pterygion.

Pterygion is an Excrescence of flesh about the Nails of the Fingers or Toes. A *Whitflaw* arising about the Nails is often the *Cause* of this Disease in the Fingers: it is also caused by some Bruise of the flesh under or about the Nails. Sometime an Excrescence ariseth from the root of the Nails by reason of some Pustule that preceded; in which case the Membrane underneath is often concerned. Cause.

It happeneth also in the Toes through some Bruise or pressure of the Nail, especially where the Nail is thick and hard, as some over-grown Nails are, whence pain and Inflammation is stirred up, and an eruption of Matter followeth, which being exasperated by a continual pricking or pressure of the Nail, the Ulceration spreads and corrupts it, and thrusts out Excrescences and loose flesh round about. When this happeneth in poor people, who travel much in the wet and dirt, and want that accommodation which is necessary to keep their feet dry and clean, the Matter corrupts the Tendons and Bones; as I have frequently seen amongst our common Souldiers in the time of the Civil Wars, and amongst some of the poor people that come out of the Coun-

try in the time of publick Healing, to be touched for the *King's Evil.*

Difference. They take their *Difference* from the Cauſe, and Part which they affect: ſome riſing ſuperficially in the ſides of the Nail with eroſion; whereas others, ariſing from the Tendons, corrupt the Bones.

Signs. The *Signs* are evident, *viz.* the Ulceration and Excreſcences appearing about the root or ſides of or under the Nails with pain. If it affect the Tendons or Membrane under the Nail, the pain is more vehement: if the Bone be corrupted, the putrefactive Smell will diſcover it.

Prognoſtick. In the *Pterygion* affecting the Skin there is no great difficulty of Cure: if the Nail be pared away, the Ulceration will ſoon heal. But if it ariſe from the Tendons or Membrane at the root of the Nail, the work is more hard, and in old people, or Bodies ill habited, it is apt to gangrene.

Cure. In the *Cure* of the ſuperficial Ulcerations with looſe fleſh ariſing about the Nail, you are in the firſt place to cut away the Nail, that you may apply your Medicaments to the Ulceration, which may conſume or dry the looſe fleſh and cicatrize it: in which caſe you may uſe a little dry Lint, or Lint dipt in *aq. calcis* and dried, or *pulv. cort. granat. balauſt. terr. ſigillat. lap. tutiæ*; in ſtronger habits, *Merc. præcipitat.* You are to avoid the application of moiſt or greaſy Medicaments, for they rot the Nails, and increaſe the Ulceration. The Excreſcences ariſing from the Tendons or Membrane at the roots of the Nails require Medicaments more powerfully drying; ſuch as are *æs uſtum, ſquamæ æris, calx viva, troch. polyidæ, Andronis, Muſæ:* yea the Cauſtick-ſtone warily uſed, *Merc. præcipit.* and the Vitriol or Alume-ſtone, may ſerve to cicatrize the Ulcer.

1. Obſervat. of Excreſcences about the Nail of the Fore-finger.

A Young Lady having bruiſed her Fore-finger accidentally, and neglected the Cure, it corrupted under the Nail, and became very ſore. I was ſent for, and found the inſide of the Nail looſe, the skin at the root of the Nail raiſed up, and full of ſpongy fleſh. I preſently cut away the ſide of the Nail, to give diſcharge to the Matter, then dreſſed it with dry Lint, and applied a Pledgit of *unguent. tutiæ* over it. The Excreſcence riſing from the root of the Nail I dreſſed with *Merc. præcipitat.* and laid a Pledgit of *unguent. tutiæ* over that Swelling, with a ſnip of *Emplaſtr. diachalcit.* as an intercipient, and rowled it up. The Ulceration on the ſide where I cut the Nail away cicatrized by the foreſaid Dreſſings; but that at the root of the Nail I found ſwelled; the Præcipitate had cruſted the looſe fleſh and ſtopped the Matter in. I ſcraped it away, and filled the Ulcer again with the ſame Præcipitate, and applied a Pledgit and Emplaſter over it, as before. The ſecond day after I dreſſed it again, and found it more hollow, the looſe fleſh coming away in a Slough. I then left off the uſe of the Præcipitate, and applied a Pledgit of *unguent. tutiæ* with an Emplaſter, and made a moderate Compreſſion over the Ulcer to unite the Cavity, and thereby agglutinated it in three or four Dreſſings, and cicatrized the lax edges with the Alume-ſtone and dry Lint. This Nail being caſt off, a new one thruſting forth reſtored the Part to its natural figure. From ſuch Ulcerations at the roots of the Nails there often ariſe great Excreſcences, eſpecially from the Thumbs, and are extremely painful and difficult to cure.

2. Obſervat. of an Excreſcence on the thumb-nail.

I was ſent for to one who was grievouſly afflicted with ſuch an Excreſcence: it was as big as a Cherry-ſtone; it was hard and gleeted, and the parts about it much inflamed. I applied a ſnip of Emplaſter between the Excreſcence and the Nail: then I rubbed the Excreſcence with a Cauſtick-ſtone, and with an armed Probe dried up the Salt as it diſſolved in the working. After I had conſumed the Excreſcence, I waſht out the Salts in the Eſcar with a little Wine warm, pulled away the ſnip of the Emplaſter which I had laid to defend the Nail from the Cauſtick, and covered the Eſcar with Præcipitate, applying a

Pledgit

Pledgit of *basilicon*, and an *Empl. è bolo* over it. I dressed it the next day lest the gleet should offend the Nail; but I found it dry, and the Patient easie from an hour after I had last dressed it up. I continued the use of Lenients, and, after the Slough separated, rubbed the remaining root with Vitriol-stone, covering it with Præcipitate again; and afterwards by dressing it twice or thrice with Præcipitate dried it up.

A Gentleman, having layn somewhile under Physick and Chirurgery for an Ulceration about the Nail of his great Toe, consulted me. I saw the Matter flow round the Nail, yet the Nail was not loose, nor did it seem to press into the flesh; for there had been a Corn-cutter who had cleared it: and in truth I supposed the Matter to arise from behind the root of the Nail, it being there hollow and inflamed. To make a farther discovery, I filled all the chinks with *Merc. præcipitat.* and with a dry Pledgit of Lint and *Emplastr. de minio* dressed it up. A day or two after, when we dressed it, we found the Nail overflowed with Matter, and could make no certain judgment of its original: whereupon we dressed one side with Præcipitate, the other with dry Lint, and that behind the Nail with *unguent. diapompholyg.* and thereby it appeared that the Matter arose from behind the Nail. For by this way of dressing the sides dried; but after we filled that Cavity over & behind the root of the Nail, the Matter burst out under the Nail, and was seen to lie in the sides. Upon which Physick was again proposed, to purge off the naughty Humours: but indeed the Cure consisted in the cutting off that callous Skin behind the root of the Nail. But my Brother Chirurgeon dissenting, the Patient complied with him to avoid the pain. Yet after a farther experiment by dressing two or three days, I prevailed, and with an Incision-knife cut off that callous Skin, then digested it with *unguent. basilicon*, and in as few days cicatrized it: and from that time there appeared no more Matter or Sore.

3. Observat. of the Nail of the great Toe.

A Gentleman of about 70 years of age, having Nails on his great Toes very big, hard and crooked, the one of them pressed so streight upon the Membrane underneath it as to make an Ulceration, which increasing with putrefaction, he came to Town. It seemed to me to be gangrened underneath the Nail; wherefore I presently passed my Knife under the Nail, and made a separation of it. The sides of the Nail lay very deep, and in some parts tied fast by its Ligament. It being removed, I washed the Ulcer with Wine; but it bleeding too fast to make any farther judgment of it at that time, I covered it with Præcipitate, and retained it on by Pledgits of Lint and Emplaster. The second day after I found it crusted with the Præcipitate, but a corrupt Matter bursting through it in several parts, and the Ulcer appearing deep, I took off that Crust, and dressed it with *unguent. basilicon* mixt with Præcipitate and *alum. ust.* and by Detergents and Epuloticks, as hath been shewed in the preceding Observations, I deterged and cicatrized it: then causing the Nail of the other great Toe to be rasped and cut round, to prevent the like accident, I dismissed him.

4. Observat.

Sometime in elderly people a crude Humour diseases the Tendons and Membranes at the root of the Nail, and through defect of the natural heat corrupts it, and if it be not timely succoured a Mortification follows.

A Gentleman of above 70 years of age, complaining of a Sore at the root of the Nail of one of his great Toes, was commended to my care. The Ulcer was crude, and had corrupted the Flesh and part of the Ligament. *I* dressed it up with *Merc. præcipitat.* with a Pledgit of dry Lint upon the Nail; and over the Part affected applied *unguent. basilic.* with *Emplastr. diachalcit.* The second day after, opening it again, but finding no digestion, *I* dressed it as before, and the next day fomented it with a *Lixivium* wherein was decocted *absinth*, &c. I cleansed the Ulcer of the Præcipitate, and dressed it with a Dossil dipt *in*

5. Observat.

oleo

oleo terebinth. hot and *unguent. basilic.* with an Emplaſter over it. The next day I dabbled it hot with *ol. terebinth.* upon an armed Probe, filled it with Præcipitate, dreſſed it up as the day before, and deſired that a Phyſician might be called to ſee the evil quality of the Ulcer, I ſuſpecting it would not digeſt. The ſecond day after Doctor *Jaſper Nedham* met me, and ſaw the Ulcer dreſſed. There then lay a hard dry Eſcar without either Matter or Gleet, which I took for a good Sign, and with my Knife made a little Separation of the Eſcar, to give vent to it, and dreſſed it up with Lenients, to haſten the fall of the Eſcar. It was ſeven or eight days in ſeparating, and then it came off with a well-digeſted Matter, incarned, and in few days cicatrized.

When theſe Ulcers corrupt the Bone, the beſt way is to cut off that rotten Joint, to preſerve the reſt.

6. Obſervat. Thus one being affected with a putrefactive Ulcer to the Bone, part whereof lay bare under the Nail of one of her great Toes, I adviſed the cutting off that Joint: which ſhe conſenting to, (as being the moſt eaſie and ſpeedy way to prevent farther miſchief) I ſent for a Mallet and Chiſel, and cut it off. Then having permitted it to bleed ſome ounces, I dreſſed it up with *pulv. Galeni cum albumine ovi*, with ſome ſnips of an Emplaſter croſs over the Stump, and a piece of a Sheep's bladder with Bandage to retain the Dreſſings cloſe. The ſecond day after I dreſſed it *cum terebinthina & vitello ovi*, and thereby digeſted it, then incarned it with *unguent. diapomphol.* and with the help of the Vitriol-ſtone and Pledgits dipt in a Solution of *ſacch. Saturni in ſp. vini* cicatrized it in few days.

Chap. XIII.

Of Pernio.

Deſcriptiō. *Pernio* is a peculiar Inflammation, and belongeth to Bloud, it raiſeth a thick red Swelling with itching pain in the Hands and Feet.

Differences. Thoſe affecting the Hands are generally called *Chilblanes*, and under that notion I have ſeen them in the Faces of ſome tender perſons, who do not often expoſe them to the air without a mask. When they affect the Feet they are called *Kibes*.

This Diſeaſe happens ſometimes in people of age, but more often in Children.

Cauſes. The outward *Cauſe* is the nipping cold air in the Winter ſeaſon, which pierceth the Skin, maketh painful Swellings, and at the ſame time ſhutteth up the Pores ſo as the Humour cannot tranſpire, whereupon it corrupts, and raiſes little Wheals or Bliſters, which ulcerate the *Cuticula*, and corrode into the Skin, and ſometimes deeper, as in Kibes is frequently ſeen.

The internal Cauſe may be taken from ſome indiſpoſition of the Bloud.

Signs. The *Signs* are manifeſt in the back of the Hands and Fingers, they appearing, as we generally expreſs them, ſwelled with cold. They are of a thick red colour, and thruſt out many ſmall Wheals which itch very much, and being rubb'd do ulcerate and chop the Skin, and diſcharge a thin Humour. *Kibes* appear after the ſame manner in the Heels.

Prognoſtick. *Chilblanes* are exempt from danger, but are vexatious, and not eaſie to cure

cure whilst the cold weather lasts, and being cured are apt to return yearly. The *Kibes* may prove dangerous, and difficult to cure, if they be any whit neglected, the Matter being apt to ulcerate the Flesh to the Bone, and sometimes gangrene.

In the *Cure* the manner of living is to be considered, especially that they defend themselves from cold, and keep their Feet dry and warm. Of the Medicaments proper in this Disease some are preservative, while the Skin is whole; and others are curative, and necessary when they are whealed and ulcerated. Cure.

The Preservatives are, as I have said, to cloath the Parts warm, that the Pores may be open to give a breathing to the Humour: to which purpose furred Gloves and woollen Mittens and Socks are to be commended, also Dog-skin Gloves for the poorer sort; the richer may have oiled Gloves. Socks dipt in Brandy-wine and worn are preventive. The Mariners to prevent this Disease in their Hands dip their Mittens in Sea-water, and having wrung out the water, draw them on. All Fomentations, whether it be fresh water, or Beef or Fish broth, are proper to further Transpiration. In the Cure we commend the Decoction of warm Plants, as Wormwood, Southernwood, Mugwort, Marjoram, Thyme, Hyssop, Rue, Rosemary, Bays and Juniper, with their Berries. Turneps are the specifick, and if they be frozen they are more efficacious. *Unguent. rosat. cum oleo terebinth.* in a roasted Turnep is an approved remedy in the Cure of them: also this, ℞ *mannæ, thuris, an.* ʒ j. *cort. pini* ʒ ij. *axung. porcinæ & anserin. an.* ʒ iij. *ceræ q. s. fiat Ceratum.* If the Ulceration be large, it requires to be cured as in an Ulcer with Fluxion.

In the Cure of *Chilblanes* we are never consulted unless they be complicated with some other Disease, or are past the Cure of common Applications.

A Girl of about nine years of age, of a very ill Habit of body, was the last hard Winter very much troubled with Chilblanes upon her Hands and Fingers. She had also Kibes on her Heels, and about one of her Ancles, and on the small of the other Leg. I directed a Fomentation of a Decoction of some of the aforesaid Plants, with an addition of Brandy-wine, with which they were all bathed. The excoriated Chilblanes I dressed with *unguent. de lithargyr.* upon Pledgits of Lint lying at such distance as the Matter might get out between. The Clusters of Wheals were dapt with a Solution of *sacchar. Saturni in spir. vini*, and the forementioned Cerote applied over all. From the Kibes, which were ulcerated and sordid, I clipt the loose *Cuticula*, and dressed them with *unguent. basilic. cum Merc. præcipitat.* and sprinkled some of them first with *Merc. præcipitat.* The Excoriations about them were dressed with *unguent. tutiæ*, &c. according as they required, during which she was purged, and happily cured. 1. Observat. of Chilblanes and Kibes.

A Gentlewoman of about forty years of age, abounding with sharp Humours, was some Winters past grievously afflicted with Chilblanes on her Hands and Fingers, which terminated in great Excoriations: they also affected her Face and Ears. I let her bloud about ʒ viij. and dressed the Ulcerations with *unguent. tutiæ*, and washt the Parts whealed and swelled with *spir. vini* wherein was dissolved *sacchar. Saturni.* The next day she was purged with an Infusion of *sena, rhabarb. cum syr. ex infus. ros. cum agarico.* I bathed her Face and Hands with *Barnet*-posset, and dresst the Ulcerations with *unguent. de lithargyr.* She was prescribed a medicated Ale with *sarsaparilla, China*, &c. with the antiscorbutical Plants, and was sometimes purged with *calomel.* 2. Observat. of Chilblanes in Face, Ears and Hands.

calomel. and *reſina Jalapii:* by which method ſhe was cured, but hath been ſince ſubject to Chilblanes, and I believe will be ſo every Winter as long as ſhe lives.

3. Obſervat. of kibed Heels.

I was fetched to a Youth about ten years of age who had Kibes on both his Heels. I bathed them at that time with Beef-broth out of the Pot, and clipt away the *Cuticula* which hung over them and ſhut in the Matter. That being removed, I dreſſed the Ulcers which were ſordid with Detergents, *unguent. baſilic.* Præcipitate, and *alum. uſtum*, &c. as aboveſaid, and the Excoriations with Epuloticks: but the long continuance of the Ulcers had produced a Fluxion, which ſwelled the Parts about. They not being ſo capable of Bandage, I cauſed laced Socks to be made and put on, by which having reſtrained the deſcent of the Humours, I fomented the diſeaſed Parts with a *Decoct. ſalviæ, beton. flor. roſ. rub. balauſt. nuc. cupreſſ.* in Wine, then applied Compreſſes dipt in the ſame, and by good equal Compreſſion diſpoſed the Ulcers to incarn and cicatrize, and cured them as Ulcers abounding with humidity.

Chap. XIV.

Of a Varix.

HItherto I have treated of Tumours ariſing from the ſerous part of the Bloud: I ſhall now deliver ſomewhat of thoſe which take their original from pure Bloud; and they are of three ſorts, *Varix*, *Ecchymoſis*, and *Aneuriſma*.

Varix is the dilatation of a Vein: it happeneth in divers parts of the Body; but for the moſt part the Thighs and Legs, the Teſticles and hæmorrhoïdal Veins, and in Women the Belly, are frequently affected.

Cauſe. It proceedeth from the reſtagnation of groſs Bloud, which being tranſmitted into the Veins, either by reaſon of the depending of the Part, or from ſome other preſſure upon the Veſſel, or elſe by its own groſneſs, proves unapt for Circulation. Then, inſtead of continuing its current proportionably to the other Parts, it ſtops in the place and coagulates, and by degrees increaſeth it ſelf by the acceſſion of the like particles out of the ſucceeding Bloud; and, inlarging its bulk, dilateth its Veſſels into a capacity big enough to receive it. This coagulation of Bloud in a *Varix* is not ſo entire as to ſtop the paſſage wholly up. For the ſucceeding current alway forceth at leaſt its thinner parts by the ſides of the *Coagulum*, and conſequently helpeth the dilatation. But it lieth lazily there, and ſuffers the reſt of the ſtream to paſs by it. This moſt commonly happens in cutaneous Veſſels, where the Veins have no aſſiſtence from muſcular Fleſh, which by frequent preſſure would otherwiſe be apt to ſqueeze it forwards. To which it may be added, that the Valves of the Vein ſo ſwelled, whether naturally or accidentally, are weakened, and do not ſufficiently ſupport the Bloud in its aſcent; ſo that, falling down upon the ſides of the Veſſel, the weight of it is too great to be driven forward by the venal motion of the Bloud.

All parts of the Body are capable of *Varices*, though they are moſt commonly in the depending ones, as the Thighs, Belly, hæmorrhoïdal Veins, the Teſticles,

Testicles, *&c.* for the reason aforesaid. But in other places, where depending cannot be the cause of the Check of Circulation, we do see *Varices* to grow.

In some places it oweth its original to natural Causes; as to the generation of Milk in the Breasts, and of the *Fœtus* in the Womb: in both which cases, Nature being obliged to spend the nutritious *Serum* upon the uses there intended, the Bloud returns thick, and is apt to restagnate, and usually increaseth the Veins at those times to six or seven, it may be ten, times their natural bigness: which very accident is by Doctor *Walter Needham* (in his Book *De formatu fœtûs*) made use of as an argument to prove, that the nutritious juices are carried to those places by the Arteries, and not by any peculiar Vessels. But it also preternaturally falleth out so in Tumours of the Breasts and other Parts: in all which (but most visibly in *Cancers*) the Vessels inlarge, and the Veins become varicous. The cause of which may be referred either to the coagulation of the *Serum*, or grumousness of the Bloud, or to the obstruction of the Vein somewhere in its passage by some angustation upon it by part of the Tumour; from whence it will often happen that the Vein beyond it hath its current stopped, and is forced to swell. Nay, not only the contraction of the Vessels by preternatural Tumours doth this, but also any other Pressure. As in a Woman with Child, the burthen lying upon the *Ramus iliacus* on either side of the body, makes the Thigh and Leg on all that side varicous. Streight gartering doth the like in the Leg. So the weight of the Testicles, or the pressure of a Bolster-Truss, in case of Rupture, renders them varicous. Riding much on horse-back doth the like, by reason of the pressure that is made upon the inside of the Thigh by the Saddle, to which it usually clings; especially if you ride with long Stirrups. So also by much walking and in Labouring-people *Varices* usually happen, being occasioned, as I suppose, by the perpetual contraction the Muscles are put upon in standing, which being so contracted do press upon the upper branches of the Veins in the Thigh, and streighten them, thereby hindring the free ascent of the Bloud.

They are easily known, in what external Parts soever they are, by the turgency, the crooked figure of the Veins, and azure colour, which is more or less apparent as the Veins lie superficial or deep. Signs.

The *Sign* of a *Hernia varicosa* is, the unequal knotted Tumour in the vein leading to the Testicle, with a relaxation of the same Testicle: and when the Testicles are inflated with Wind, the Vein is also distended and painful. What the Signs are of the Hæmorrhoïdal *Varices*, and how they are to be treated, you may see in their peculiar Treatise.

Varices are not dangerous in themselves, they rather free the Patient from imminent Diseases, especially those of Melancholy; according to that Aphorism of *Hippocrates*, *Insanis si varices vel hæmorrhoïdes superveniunt, fit insaniæ solutio.* Which words are to be understood of Veins if they grow very large, or if they break and run: but if they flow intemperately, *Cachexia*, Dropsie, Consumption, and such like Diseases, follow. So, on the contrary, if they be unseasonably suppress, Madness, Pleurisie, Coughing of bloud, pain in the Kidney, Apoplexies, *&c.* do follow. The *Hernia varicosa* or *Cirsocele* is difficult to cure, as the rest are. Prognostick.

The *Varices* ought not to be cured, unless they be painful, or that they be extended into a large Tumour, or ulcerate and bleed much: for, as I have said, they preserve health. But if there be a necessity of curing them, it ought to begin with Purging and Bleeding, not once or twice, but often repeated; and if the *Viscera* be in fault, they ought to be strengthned and amended; after which the Cure may be endeavoured by astringent & exsiccant Medicaments, Cure.

and those to be applied with convenient Bandage, to press back the bloud coagulating in the Vessel, and moderately resist the Current. If these suffice not, then, according to the ancient practice, you are to proceed by Section, dividing the Skin and separating the Teguments; and having raised the varicous Vein, you are to pass a Ligature above and another beneath it, making a delligation of them; then slit the Vein, cast out the gross Bloud, and afterwards digest and heal it, as is after said in an *Aneurisma*. With what success this hath been done, you may read in the Works of *Fabricius Hildanus*: and whether the pain be little or much worth the while, you may see *Marius* his Argument thereof in his Life set down by *Plutarch*. In my Practice I have met many diseased with varicous Swellings in the Thighs, Legs, Belly, *&c.* some of them very large, and as unsightly as troublesome: but I never met with one Patient that cared to hear of the Cure by Ligature, nor indeed have I seen any great reason for it. For if the unsightliness and pain be in the Legs, it may be helped by the wearing a laced Stocking, placing a Card, piece of Vellum or beaten Lead between them. A laced Trowze will do as much for the Thigh. When they affect the Belly, they may be restrained by a Bracer, without much trouble to the Patient, or inconvenience to his health. But if you suspect it, you may in great *Varices* both purge and bleed them. The Medicaments externally applied are *balaust. cortices granat. ros. rubr. nuc. cupress. Empl. Cæsaris, unguent. sumach.* &c.

The Cure of the *Hernia varicosa* is by good Bandage, *viz.* a Bag-Truss, and the same Medicaments above mentioned: but if they be distended with Wind, treat them as flatulent Tumours. How the *Varices* when ulcerated ought to be dressed and cured, you may see in the Treatise of *Ulcers*.

Chap. XV.

Of an Ecchymosis.

A Nother sort of Tumour arising from meer Bloud is the *Ecchymosis*, called by the *Latins Suffusio* or *Sugillatio*: which two latter are more proper to the Eye than other Parts.

Definition. *Ecchymosis* may be defined, an Extravasation of the Bloud in or under the Skin or any other Part, the Skin remaining whole.

Cause. It is an eruption of Bloud from the lesser Vessels in the Skin or near it, whether from Blow, Bruise, Fall, or Prick of a Lancet in Chirurgery, when the Orifice of the Vein lieth not directly under the Orifice made in the Skin, so as that the whole stream may discharge there, and after bleeding both be closed together. For if when you close the outermost the inner lieth open, it will make a Sugillation.

These external Effusions are the Subject of this Chapter.

To the better understanding of the nature of these, it will be necessary to divide the Bloud into two parts, *Serum* and *Grumus*.

The *Serum* is that fluid substance which floweth about the *Coagulum* or *Grumus* in the Chirurgeon's Porrenger. It is not only the nutritious juice that nourisheth all the parts of the Body, but also the Balsam that heals it; & is that thing that is capable of digestion, discussion, and many other alterations. This is the *Vehiculum* of the *Grumus*, and whilst it circulates doth keep it fluid, and cau-

causeth its perpetual motion through all the Vessels and Pores, as long as they continue incorporate together. And in Extravasation, if the effusion be not great, it will by degrees swallow up the *Grumus*, dissolving it and returning it into the Veins again: but if the effusion be great, so that the *Grumus* separates from the *Serum* in the Contusion, there it difficultly re-uniteth with the *Serum* again, much less digests, but either putrefieth in the Part, making Inflammation, and sometimes Gangrenes; or else, which is more seldom, hardens there and dries, making only a *morbus in numeris partium.* Such a one Doctor *Walter Needham* and my self saw in the Foot of a young Gentlewoman, who was our Patient upon another account.

Signs of a Contusion are the black and blew colour with or without Tumour. The Causes, as Blow, Fall, *&c.* are learned from the By-standers. Signs. Causes.

The danger is small, if the Contusion be such: also whilst the Humours are thin and fluid, there is hopes of returning them back, or they may be afterwards discussed. Prognostick.

But when any great Contusion happens, there the case alters, and danger is often great: of which, to omit many others, that of *Ingrassius* is a remarkable instance; where a Nobleman's Leg being bruised by the armed Knee of one that encountred him on horse-back, it killed him in three days.

When the Part, in stead of being black, blew or green, groweth red, hard and painful, the danger is eminent. Such was the case of a fat Gentleman, who, by a Fall upon his Buttocks going down stairs, bruised those Parts, and neglecting the Cure, it tended toward a Gangrene, but was got off by Scarification and Discutients.

Since the discovery of the Circulation of the Bloud, some people have proposed to themselves the *Cure* of this Disease by returning the Bloud back into its Vessels by warm Applications, as *spir. vini*, &c. Which possibly may have seemed to effect it where the *Ecchymosis* hath been small: but in great effusions of bloud, accompanied with much pain, it is not reasonable to hope a return of the Bloud by such Applications; for thereby the Tumour would be made bigger, and the least that can be expected therefrom is a Suppuration; whereas those which shall be treated according to the method of the Ancients, by Repellents, and afterwards by Discutients, shall be secured from Apostemations, and soon recovered, if the Habit of the body be any whit good. Cure.

If the Effusion be great, we begin the Cure by opening a Vein, and drawing bloud proportionably. If it be small, the common Remedy of brown Paper soaked in cold water or Oxycrate may serve for the first Applications; and afterwards the Sugillation may be breathed forth by fomenting it with Discutients, or warm water, or with *spir. vini*, *ol. anisi*, &c. But if we suspect great Extravasation, we then embrocate with *ol. ros. myrtill. cum aceto & album. ovor.* and renew the Applications often: or if more astringent be required, there may be added of the *pulv. bol. Armen. sang. dracon. flor. ros. rub. balaust. myrtill. gallar. nuc. cupress.* And after the Fluxion is restrained, we apply Discutients with Repellents. ℞ *ung. aregon* ℥iij. *ol. lumbric. cham. rutæ, an.* ℥j. *terebinth.* ℥ij. *pulv. sem. fænug.* ℥vj. *flor. ros. rubr. balaust. an.* ℥ij. *croci* ℈ij. *ceræ q. s. fiat Ceratum.* If the skin be whole, a mixture of the tops of green Wormwood, Bay-salt and Vinegar may be applied. In great effusions of bloud this Discutient may be applied after the Fluxion is checked: ℞ *rad. bryoniæ, sigill. Solomonis, an.* ℥iij. *flor. cham. sambuci, an.* P. j. *far. hordei, fabar. sem. fænug. an.* ℥j. *summit. absinthii* M. j. *sem. cumini* ℥iij. *coq. in vino, & fiat Cataplasma S. A. addendo in fine Oxymel. scillit. q. s.* and foment the Part with a *decoct. absinth. in lixivio com.* If after such Applications the Bloud

remain extravasated, you shall then open the Tumour, lest it corrupt the Bone or Parts underneath: but if it inflame, and turn to Suppuration, hasten it by Suppuratives, and give vent to the Matter, and deterge with *mundif. ex apio*, &c. as the putrefaction requireth. If it tend to Mortification, treat it as such; but with Caution to leave off these Applications when you have restored the native heat to the Part, lest thereby you make new Fluxion, and the Part gangrene indeed.

In case the body be bruised by a Fall from on high, or any other way, the Patient is to be immediately let bloud, and the bruised Parts to be embrocated with some of the abovesaid Repellents; or, if it may be had, lap him in a Sheep-skin flay'd quick off: and then you may prescribe the common Remedies, as a draught of *Spruce* Beer, or ℥j. *sperm. ceti*, *Irish* Slate, or such like Powders; ℞ *rhabarbari tosti, terræ sigill. mumiæ, an. p. æq.* The Dose may be a dram in some proper Vehicle: and afterwards you may by Discutients in the form of Unguents or Cerots breath forth the remaining bruised Bloud.

I shall now give you some Observations of an *Ecchymosis*, and should begin with the lesser, as those in the Face, which are so commonly known by the black and blew marks which they leave behind: but the Cure being as common, makes it not worth my labour. Something of them you may meet with in the Treatise of *Wounds*. Of the Cure of the greater Contusions I shall give you some Instances.

1. Observat. A Person of about thirty years old, of a full Body, stepping into his Coach, his foot slipped, and he bruised his Shin upon the Foot-board. He returned to his Lodging, and purposed to send for a Chirurgeon: but in the while looking upon it, and seeing no skin broken, he was advised to bath it with *spir. vini*, to rarefie the bloud and keep it circulating; a new way to make work for a Chirurgeon. He did so, and lapp'd it about with a cloath dipt in the same, continuing this way of Dressing some days. It growing daily less painful, but the Swelling not going away, I was sent for, and perceived indeed the black and blew colours to be in a great measure gone, but by their relation the Tumour was bigger: by which it was easie to judge of the great virtue of *spir. vini* so used. Whereas by Repellents at first with the expulsive Bandage the Bloud might have been restrained, and afterward what was extravasated might have been easily discussed. We see it daily in our Practice, and censure those of our Profession who suffer such Extravasation in every little Tumour to corrupt.

In this Patient there was a Tumour of about a week's continuance: the question was, whether what was contained in the Tumour was Bloud or Matter. If Matter, then a painful Fluxion should have preceded with Inflammation and hardness, and have terminated by Discussion or by Suppuration: whereas this swelled and was painful upon the blow, but was never hard nor inflamed, or much painful, after the sense of the stroak was over, but soft from the first night; and must consequently be Bloud. But whether it were Bloud putrefied, or concocted Matter, there remained no hopes of discussing it; nor was it safe permitting it to lodge so near the Bone in expectation thereof. Therefore, without farther dispute, I laid it open by Incision, and discharged about two spoonfuls of a corrupt black bloud and *Serum*; then dressed it up with a Digestive *ex terebinth.* and embrocated the Tumour with *ol. chamæm.* and applying an *Emplast. stict. Paracels.* with Compress and Bandage rowled it up. The third day after I dressed it again, fomenting it with the Decoction set down in the method of Cure, and deterged with *mundif. Paracelsi*; and by the help of the Vitriol-stone and the common Sarcotick,

tick, *unguent. diapompholyg.* &c. incarned and cicatrized it, but continued the Bandage a few days after, to strengthen the Part.

A decayed old Gentleman walking in the streets one evening was crusht up to a wall by a Cart: the Wheel passing too near him bruised the out-side of his left Leg, but did not break the skin: it was suddenly swelled, and very painful. His Friends chafed it with Brandy-wine, and, dipping a cloath in the same, bound it about the Part. By this way of dressing that side of his Leg swell'd and inflamed very much. Others advised him *Lucatell*'s Balsam: by which improper Application the Fluxion was increased, and the Patient confined to his bed. Here was an object of Charity, upon which account I was sent to him. I found the out-side of his Leg swell'd and apostemated from the Gartering to the Small. I laid it open by Caustick an inch or two, according to the length of the Member. In dividing the Escar, there was discharged a large quantity of Matter with clotted bloud in it. I dressed the Escar with Lenients, and embrocated the Parts affected *cum ol. ros. & vino austero*, and applied *Empl. è bolo* over the Tumour with Compress and Bandage. The next day I brought a Decoction of *absinth. flor. cham. ros. rubr. bacc. myrtill.* fomented the Leg, and dressed the Escar with Lenients to hasten Suppuration; then by good Bandage thrust out the Matter, and endeavoured to agglutinate the hollow Parts; but could not do it without laying it more open by a snip made with a Probe-scissors. After which I deterged the Ulcer with the Vitriol-stone and with *unguent. basilic. cum Merc. præcipitat.* Then I incarned and cicatrized it, as hath been said in the former Observation. If in stead of *spir. vin.* &c. they had dressed this man's Leg. *cum bol. Armen. aceto, album ovor. & ol. ros.* they might have haply prevented the pain and trouble that followed. 2. Observat.

An old Gentleman was sorely bruised by a Fall in several parts, but especially on the inside of his left Arm. After the space of two months I was consulted, and saw an *Ecchymosis* very hard and big lying along the Vessels that reach on the inside of the Arm to the Elbow-joynt. I embrocated *cum oleo lumbricor. vulpin. & guttis aliquot olei origani & lavendulæ*, and applied *cerat. agripp.* over all. The next day I fomented with Discutients to which was added *spir. vini.* Then, having embrocated it as aboveside, I appli'd a Cataplasm *ex farinis hordei, orobi, lentium, sem. fœnugræci, cum flor. chamæmeli, sambuci*, &c. decocted in some of the former *Fotus*, with an addition of some of the aboveside Oyls and *Oxymel scillitic.* By which method the Swelling and *Ecchymosis* were scattered. 3. Observat.

A Man of about sixty years of age scorbutically affected, by a Fall upon a paved Floor, bruised his left Thigh. It was embrocated *cum oleo ros. & aceto*, and an *Empl. è bolo* applied over the grieved Part. Venæsection was proposed, but not permitted, by reason of his age, nor would he purge. The third day he complained of extremity of pain, and suspected his Hip luxated. I took off the Dressings, and felt the Joint well, but all that side of the Thigh over-spread with an *Ecchymosis*. I embrocated with *ol. chamæmel. & lumbricor.* with an addition of *ol. terebinth.* and applied *Empl. stict. Paracels.* with a third part of *Empl. diachalcite-os*; and the next day fomented the diseased Thigh with *decoct. absinth.* &c. *in vino & aqua*, to which was added *spir. vini.* Thus the extravasated *Serum* was resolved: but the Emplaster was continued by reason of his pain which remained notwithstanding. Some weeks after he complained of a nummedness of the whole Leg: upon which account Embrocations were repeated, also Purging and *decoct. sarsæ*, &c. with Antiscorbuticks: but he took little of them. During this the Leg began to emaciate, and a Species of a *Paralysis* increased. Vesicatories were applied, and afterwards a Caustick below the Gartering. 4. Observat.

tering. The next day I divided the Eſcar, and dreſſed it with Lenients, but left the attending of it to my Servant. Some days after, being informed that the Eſcar did not ſeparate, but grew painful, I viſited him, and ſaw it dry, not likely to ſeparate: the Leg was alſo ſwelled with pituitous Humours. Since his Fall he had been below ſtairs walking with Crutches, but of late did ſit up moſt part of the night, by reaſon of his pain. This and the weakneſs of the Member had occaſioned the Swelling, and infeebled the native heat in the deſigned Fontanel. I cut into the Eſcar, dapt it *cum oleo terebinth.* hot, and fill'd it with *Merc. præcipitat.* then dreſſed it with Pledgits applied warm out of a mixture of *unguent. baſilic.* with ſome of the ſaid Oyl; after fomented the Leg with a *Lixivium* wherein had been decocted ſome of the warm Plants, and appli'd a Cataplaſm over the Ulcer. Thus the Eſcar was digeſted, and fitted with a Pea, and the Swelling reſtrained: but ſome months after he ſunk under a *Diarrhœa.*

5. Obſervat. A Man of about thirty ſix years of age, of a lean Conſtitution, by accident of a Fall near two ſtories high into the Street was ſorely bruiſed, eſpecially on his left Side, Hip and Arm. I immediately let him bloud largely, and embrocated the Parts bruiſed *cum ol. roſ. myrt. & aceto,* and applied aſtringent Emplaſters as above mentioned. A Clyſter was alſo preſcribed, and *Iriſh* Slate, *&c.* was given him, whereby he was diſpoſed to a breathing Sweat: and at the hour of Sleep an Anodyne draught was preſcribed, to incline him to reſt. By this method the Fluxion was checked, during which the Parts diſeaſed were fomented with a *decoct. ſummitat. abſinth. anethi, majoranæ, flor. cham. ſambuci, ſem. aniſi & cumini*; to which was added *ſpir. vini.* Embrocations were alſo made *ex oleis aneth. rutæ, & terebinth.* and the Cerote above propoſed was applied over them: and in progreſs of time he was cured.

Chap. XVI.

Of an Aneuriſma.

AN *Aneuriſma*, according to my Deſcription, is an *Ecchymoſis*, and indeed the higheſt Species of it. But ſince Authors have given another account of that Tumour, and have allowed it a peculiar Chapter, I have done ſo too; the rather, becauſe the nature of the Veſſel through which the Effuſion is made doth require a different method of Cure.

Deſcription. It is a Tumour ſoft, white, and yielding to the touch, but riſeth again upon the removal of your finger; and is for the moſt part accompanied with pulſation of the Artery.

Opinion of the Ancients. It is raiſed, according to the Opinion of Authors, by dilatation or relaxation of the Artery; they ſuppoſing the Bloud to have burſt its paſſage through the firſt Coat, and dilated the ſecond, thereby raiſing the Tumour. And this ſome of them have delivered to us ſo poſitively, as if they had in opening them found the exteriour Coat ſo dilated. This I my ſelf was taught, and ſome while believed: but not having been able by my Practice to diſcover one *Aneuriſma* made by dilatation or relaxation of the outward Coat, I am apt to believe that there is no ſuch thing, but that it takes its riſe from Bloud

Bloud bursting quite through the Artery into the interstices of the Muscles, where it raiseth a Tumour suitable to the Cavity it findeth, growing bigger or less, of this or that shape, as the Muscles give way. But this Tumour consists of Bloud extravasated, the Artery lying undilated the while. I do therefore suspect the possibility of an *Aneurisma* by the dilatation of the outward or softer Coat of the Artery, because it seems improbable that a force big enough to burst the inward Coat, which is so tough and firm, should leave the exteriour, being softer and weaker, whole, and go out so leisurely into it as to give it time for dilatation. Those which I have met with did all come from downright eruption through both the Coats; and those that come from external Punctures must of necessity begin with a breach of the external Coat first, it being next the Lancet, or other Weapon that made the division. *Sennertus* would have it to heal again, though contrary to my experience, who have always found it open as well as the internal: and indeed reason must tell us, that the constant eruptions of bloud out of the Artery in every Pulse must needs keep it open; nay, the Bloud keeps not within the bounds of any one Membrane, but I have seen it extravasated through all the interstices of the Muscles of the whole Arm.

The *Causes* of *Aneurisma*'s are divers, internal, or external. 1. The internal Cause is, the impetuosity of the Bloud, which moving with greater violence in its Chanels than the Artery can sustain, doth force its way through the side of the Vessel, and, bursting a hole in it, doth issue into the space that lieth between it and the neighbouring Muscles, there incrassating the Membranes of the Muscles, and framing it self a nest. Causes.

This *Impetus* may rise first from the quantity of the Bloud. Either when it is more than the Vessel can contain, a case that seldom happens to produce an *Aneurisma* in any conspicuous Vessel; but if any such thing be, it opens at the Nose, or Lungs, or in the Brain, (there causing an Apoplexy;) or in the Stomach, Guts, *Anus*, &c. Or else when this Bloud is not really more than the whole Body naturally should contain, but by violent Passion, or motion in stirring, is too forcibly driven forwards from the Heart towards some peculiar Artery; when the farther progress being (it may be) intercepted by some violent contraction of the Muscles through which it must pass, it of necessity breaks the Vessel: and thus in violent Vomiting and other Straining *Aneurisma*'s are often made in the Neck, Arms, Legs, *&c.*

Secondly, from the quality of the Bloud, which, being too sharp or thin, erodes the Vessel; or, being highly fermented by other causes, bursts through all.

This Bloud, though extravasated, doth usually pulse: partly, because the body of the Artery from which it breaks doth pass through it, and by its Pulse doth agitate that; and partly, because in every such Pulse some addition of Bloud is made to the Tumour. Yet this Pulse is chiefly in small *Aneurisma*'s or superficial ones; for in the greater the motion of the Artery is not always felt.

2. The external Causes are puncture by Lancet or Weapon, cutting, bruising, erosion, or whatever else may divide the Coats of the Arteries.

The *Differences* of an *Aneurisma* are either from its magnitude, situation, or shape. From the Magnitude it is denominated great or little, possessing the whole member or a part. From its Situation, it is superficial near the Skin, or deep in the Muscles. From its Shape: either it keeps the shape of the Part; which usually happens when the Orifice in the Artery is small, so that the Bloud comes out leisurely, and finds the neighbour-Membranes so well united as to keep it within a certain channel, which Membranes are also fortified by an addition Differences.

addition of a *Serum* coagulated from the extravasated Bloud: or else it alters its form, when it groweth suddenly and irregularly, the Eruption being so great that it cannot be kept within bounds; or when it is by an ignorant Chirurgeon treated with Lenients and Discutients, being mistaken for some other Disease; for in this case the Membranes are relaxed, and give way to the Tumour.

Signs. From these Differences the *Signs* of an *Aneurisma* may be taken. If the Tumour be small and superficial, a Pulsation may easily be felt in every part of it. If it be great and rise suddenly, and was white and soft from its first appearance, though there be no Pulsation to be felt, yet you may conclude it an *Aneurisma*, there being not any Humour save that of Bloud which can so suddenly raise such a Tumour. The often increase and diminution of the Tumour is also a Sign of an *Aneurisma*; the diminution of it being the return of the Bloud into the Artery, whence it as often cometh out again.

If it happened from a Puncture of a Lancet, the manner of the spurting out of the Bloud will shew it: and if it do not bleed, yet a sudden Tumour thrusts up under your Finger, with Pulsation, the bloud breaking out into the interstices of the Muscles, though not quite into the Skin.

The Tumour is more compact or scattered according as there was care taken at first to restrain it within compass. In some of these there is redness and Inflammation, by reason of the expansion of the Parts beyond their capacity, or from the putrefaction of the Bloud: in which latter case Fever and Fainting for the most part accompany it.

Prognostick. All *Aneurisma*'s are difficult of Cure. Those which are large, and arise from Arteries deep in the Muscles, to which you cannot make your Applications, are incurable: and if they be unadvisedly opened, the Patient is in great danger of his life. But if the *Aneurisma* be in such a Part as is capable of Bandage and application of Medicaments, the Cure is feasible; or the Disease may be palliated to the ease of the Patient.

Cure. The *Cure* of an *Aneurisma* consists in the timely application of proper Medicaments, and Bandage to restrain the Bloud and keep it within its Channel: or by Escaroticks or the actual Cautery you may destroy it. But if it lie where you may take it up, the Cure is then best performed by dividing it. The Medicaments proper to restrain it in its motion, and agglutinate the Vessel, are, *bol. Armen. sang. dracon. thus, aloe, far. volat. gypsum*; also the juices of *plantag. burs. pastoris, millefol. vincæ pervincæ, pilosellæ, lamii*, and such like. The Compounds may be made of some of the foregoing Powders with some of the aforesaid Juices, or mixt *cum aceto & albumin. ovorum.*

In the first appearance of the Tumour, if it arose from an internal Cause, you shall endeavour by the application of some of the aforesaid Astringents and Bandage to restrain the growth of it: but if it be in a place incapable of Bandage, you must content your self with the application of *Empl. Cæsaris*, or such like. If it be near the *trachea Arteria*, the Patient may wear beaten Lead or Gold upon it covered with Sarsenet or the like. You are to be well advised before you attempt the Cure by opening it. If by putrefaction the Bloud burst forth suddenly upon you, the life of your Patient is then in danger, and it will become you to be quick in the application of good Restrictives and Bandage, till you have time to consider what to do: and be sure to provide against the next Eruption; for till it break of it self you are not to open it; and then you may attempt the stopping of the Flux by such means as have been or hereafter shall be proposed.

If the *Aneurisma* happen by Puncture in letting bloud, the Chirurgeon ought to permit the Vessel opened to bleed freely: but if it doth not bleed well, let

let him immediately looſen the Bandage, and apply a Compreſs dipt in his *MAJESTY*'s Stiptick, or, for want of it, in *Oxycrate*. Let it be held firmly upon the Apertion by a Servant, whilſt the Chirurgeon openeth a Vein in the other Arm, and maketh Revulſion by a large evacuation to fainting, if it may be permitted. The while let your aſtringent Powders be applied to the Wound, with good reſtrictive Emplaſters over them. The upper part of the Arm to the *Axilla* is to be defended by cloaths wrung out of *Oxycrate*. Then with a Rowler with two heads take two or three turns upon the diſeaſed Part, and rowl upward, (his Arm being bowed the while:) and, for more ſecurity, take a turn about the Neck, and return back with your Bandage gradually to the Part affected, faſtening it on the outſide; then make the expulſive Bandage from the Hand upward. Theſe ought to be made to the eaſe of the Patient, who, being thus dreſt, muſt be put into his Bed, and his Hand placed upon his Breaſt. Contemperating Juleps, Emulſions, Opiats, *&c.* ought to be preſcribed him, and his Diet, *&c.* to be regulated as is propoſed in the Chapt. of the *Wounds of the Veins and Arteries*. Having made this Bandage well, you are not to be over-haſty in opening it again; for this firſt Dreſſing haply ſecures your Patient. For the great miſchief happening in theſe *Aneuriſma's* proceedeth from the ignorance of the Bloud letter, who, not conſidering the errour by him committed in letting bloud, binds up the Arm careleſly, and the next day, upon the Patient's complaint, not diſcovering the cauſe of the Tumour, foments and embrocates it, thereby making way for the Bloud to empty it ſelf into the interſtices of the Muſcles; whereupon the whole Arm ſwelleth. In which caſe a laced Sleeve and Glove may be of great uſe. When this method fails, it may be neceſſary that you prepare for Deligation of the Artery. The manner of doing it you may ſee in the Chapter of *the Wounds of the Veins and Arteries*. I ſhall alſo ſhew it in one of the following Obſervations.

I Have had many brought to me with ſwelled Necks, upon ſuſpicion that they were troubled with a ſpecies of *King's Evil*, called *Bronchocele:* but the Pulſation of thoſe Tumours ſhewed them to be *Aneuriſma's*, and the moſt difficult to treat, they, by reaſon of their ſituation, not being capable of Bandage. In which caſes I commonly propoſed the wearing of a Cap of beaten Lead made of many ſheets laid upon one another, and covered with Silk or Sarſenet, which with Ribbons were made to faſten about the Neck with much eaſe: or, if they would have Emplaſters, I applied ſome of a mixture of *unguent. ſumach* with *Empl. Cæſaris*, or ſuch like. 1. Obſervat. of *Aneuriſma's* lying near the *trachea Arteria.*

Where *Aneuriſma's* have affected Parts capable of Bandage, I have ſometime palliated them: but when they would not be ſo quieted, I proſecuted the Cure as followeth.

A Man of about 40. years of age, having ſome time been troubled with a large ſoft Tumour on the inſide of his right Leg about his Gartering, deſired my advice. It was without Pain, Inflammation or Pulſation, but ſoft from its firſt appearance, and was bigger or leſſer according as he walked much or little; which gave me ſuſpicion it might be an *Aneuriſma*. I applied *Empl. Cæſaris* over it, cauſed a laced Stocking to be put on, let him bloud, and adviſed to Purging, regulation of Diet and Exerciſe, *&c.* by which it was kept quiet ſome time. But he, growing more ſecure, neglected the Rules preſcribed him; whereupon the Tumour encreaſed, and burſt forth one Night in a flux of Bloud. I was ſent for, and found much extravaſated; but the Opening it ſelf was ſtopt with a clot of grumous bloud. I dreſſed it up with Reſtrictives and Compreſs wrung out of *Oxycrate*. Then I made Revulſion by Venæſection and Deligation of other Parts. I alſo preſcribed Opiats, *&c.* to calm the fer- 2. Obſervat. of an *Aneuriſma.*

ment in the Bloud. By this and my way of dreſſing the Bloud was for ſome days tolerably reſtrain'd: but as the Opening grew bigger, the effuſion was greater. Upon which conſideration I had provided ſome *trochiſci de minio* of ſeveral ſizes, alſo ſome *pulv. ſine pari Jo. Arden.* I put in ſome of the former, and applied my Reſtrictives and Bandage over the Tumour; and, as often as the Bloud burſt forth, I continued that way of dreſſing, hoping by thoſe Eſcaroticks to deſtroy the Artery. Afterwards the Orifice growing larger, I filled up the Abſceſs with the *pulv. ſine pari* upon Doſſils, and applied Reſtrictives and Bandage as before. The Patient grew daily weaker; but from this latter Dreſſing the Bleeding was reſtrained till the fifth day, when I was neceſſitated to open it, by reaſon of the Excoriations made in many places about it by the Eſcaroticks: nor was it then much. The Opening being large, I applied the Eſcaroticks to more advantage, and dreſſed the Excoriations with *unguent. album camphorat.* continuing my *Empl. è bolo* and Bandage. From that time the Bleeding was ſtopped, I ſuppoſe by conſuming the Artery; yet for ſome while there came away much ſtinking clotted Bloud. While I endeavoured to keep the Bloud within the Abſceſs, it inſinuated between the Muſcles, making the Calf of the Leg hollow to the very Tendon: therefore, after I was ſecured of the Bleeding. I made way for the eaſie diſcharge of Matter, and deterged the Abſceſs with *mundif. Paracelſ.* To the Excoriations I continued the uſe of Epuloticks, and nouriſhed my Patient with good Broths, Caudles, *&c.* by which he recovered ſtrength apace. The ſharp Humours being evacuated with his Bloud, the Abſceſs incarned by the application of the common Sarcoticks, and he was cured in leſs than a Month, recovering alſo the perfect uſe of his Leg.

3. Obſervat. Some years ſince I was deſired to give a viſit to a man lying in my way to *White-hall.* He had a large white Tumour poſſeſſing the fore-part of his right Thigh of few months growth: it was ſoft from the firſt appearance, and obſerved by the Patient to be bigger and leſſer one time than another. I conſidered the Swelling, and concluded it an *Aneuriſma.* That there was no Pulſation to be felt in it, was becauſe it lay deep amongſt the Muſcles, in which caſe the Pulſe is frequently intercepted. There lay a gummy Emplaſter upon it, and an attempt had been made to open it by Cauſtick; but it not penetrating deep enough, the Eſcar ſeparated without reaching near the Cavity. I declared to the Patient my thoughts, *viz.* that the Swelling proceeded from Bloud poured forth of its Veſſels, either by Eroſion from within, or by ſome outward cauſe, as by Riding, *&c.* and adviſed him not to permit the Tumour to be opened, deſiring that, if his Chirurgeon ſhould perſiſt in the ſuppurating or opening of it, he would ſend to me to meet him. Some few days after the Patient ſent me notice that his Chirurgeon had been with him, and reſolved to open it: whereupon I took the next opportunity to ſpeak with the Chirurgeon, and went along with him to his Patient; where I endeavoured to perſwade him that the Swelling aroſe from Bloud, and withal propoſed a palliative Cure by a laced Trowze and ſome good Reſtrictive. But the Chirurgeon declared himſelf poſitively for the opening of it. I, ſeeing his reſolution, replied, Since you are ſo opinionated, you may (if you think good) make a trial of the Tumour by thruſting a ſmall Lancet directly into the middle of it; and if upon pulling out of the Lancet it appear mattery, you may lay it more open; if it appear bloudy, you may more eaſily cure it than one made by a Cauſtick. He readily aſſented to the trial, and the Patient rejoycing in the propoſal, he attempted it with a Lancet: but not thruſting it deep enough to reach the Cavity, I took the Lancet, and, paſſing it into the ſame Opening he had made, thruſt it directly down into the Cavity, and pulled it out bloudy; but

but not one drop followed it. The Chirurgeon not being therewith satisfied, I wished him to pass a small Probe down into the Opening. He did so: and I also made a search with the same Probe, and felt the Cavity large and full of Liquids, which was certainly Bloud, the Probe coming out bloudy. I perswaded the Patient to keep his Bed till that Puncture should be agglutinated, and advised the Chirurgeon to be careful in the Cure of it. We dressed it with a Pledgit of *liniment. Arcæi*, with Emplaster and Bandage: to the use of which Medicine I left them, not doubting of their care in healing up so small a Puncture. About ten days after, walking near the door in a dark evening weary, and desirous to rest my self, the thoughts of this poor man enclined me to go into the house. I enquired of the Land lady if he was within. She replied, He is dying: That upon his rising out of his Bed the Bloud had burst forth excessively: That the Chirurgeon had for some days endeavoured to stop it, but had since left the Patient, and a Neighbour-woman had applied a Pultice to it; and that the Chamber stunk so extreamly as it would poison me to go into it. I went up, and found the room scattered with stinking bloudy Cloaths, and the poor Man languishing in his Bed, which was not cleanlier. I sent presently away for the Chirurgeon, and in the while made Rowlers and Compresses, and sent for some Yeast and Wheat flower. The Chirurgeon being come, we spred a mixture of them upon cloaths, and armed several Tents with the same. Having thus prepared our Dressings as the time would permit, we took off the bloudy ones, and held the Orifice close while we cleansed the Thigh from the Pultice and Bloud, then stopped the Orifice with a Tent proportionably, and applied our Agglutinatives over, with Compress and Bandage wrung out of *Oxycrate*. We rowled the Member moderately straight, then laid him clean, and caused a mess of Caudle to be given him, and encouraged him with hopes of recovery. The Chirurgeon pleaded for himself, that he thought the Patient had been dead.

Three or four days after we dressed him again, and found him much recruited in his Spirits, he not having bled one drop: and indeed the Emplasters adhered as close to the Skin as we could desire. After we had taken out the Tent, abundance of grumous Bloud issued forth: we cleansed it away, and shaked into the Abscess about a dram of *Merc. præcipitat.* and though we had then choice of Medicaments, yet we applied the same as before, and continued that method of Dressings, till the Bloud was converted to Matter. Then we slit open the Orifice, and dressed it as a sinuous Ulcer. After some days, observing that the Matter could not discharge while he kept his Bed till the Abscess was full to run over, we caused him to rise out of it: but that little while he was up he swouned; wherefore we put him to Bed again, and allowed him stronger nourishment, and by a Seton-needle made way for the discharge of Matter to more advantage. The Abscess being well disposed to cure, I left him again to his Chirurgeon, who cured him.

This Experiment of opening *Aneurisma's* by Puncture is not to be imitated, unless it be in such cases as this, where both Patient and Chirurgeon are so incredulous.

Some years since, while I dwelt in the *Old-Baily*, I was consulted in the case of a Man who in his letting bloud was pricked in the Artery. The Artery did not bleed outwardly, but discharged it self between the Muscles. The Tumour, being mistaken for a puncture of a Nerve or Tendon, was fomented with Discutients, whereby I found it much inlarged, and not only the inside but the outside of the Arm swelled above and beneath the Elbow, with a Pulsation in those remote Parts. I caused an Emplaster to be made of some of the Restrictives set down in the method of Cure, *cum ol. ros. myrtill. & aceto*, and 4. Observat.

applied it over the Arm to the *Axilla* with Compreſs and Bandage. I then let him bloud,and diſpoſed him to reſt with an Anodyne draught,and preſcribed him Emulſions and cooling Juleps, with ſuch a Diet as might incraſſate his Bloud. A day or two after I ſtrengthened the former Bandage by a laced Sleeve and Glove, by which for ſome time much of the Bloud was returned back into the Artery, and the Arm ſeemed in a hopeful way of recovery: but through irregularity the Arm ſwelled again, and the Patient grew weary of us, and gave ear to every prattle; and ſo it happened that an Empirick was commended to them, as having an excellent Medicament to ſtop Bleeding. He was fetcht,and undertook the Cure,and removed the Patient nearer his Lodging, where he treated him: but he being ignorant in making the Bandage, or poſſibly not thinking it ſo neceſſary, the Arm ſwelled, and the Tumour on the inſide of the Arm being ſoft and prominent, he concluded it *a bag of Matter*, (as he called it) and applied a few bruiſed Herbs to it, which eat into the Skin, and made way for the Bloud to burſt forth abundantly; inſomuch as a neighbouring Chirurgeon was ſent for, and he called others, who together made a ſhift to ſtop it at that time. But his Arm gangrened, ſo that within few days after they prepared for the cutting it off. The Patient's Relations, being acquainted with the accident,ſent me to them. I ſaw it amputated, and the Patient put into his Bed. We ſlit up the Arm,and laid the Artery bare. It retained its natural ſhape and ſmalneſs, not one jot dilated; nor was the Apertion conſiderable which had been made by that accident,but by reaſon of its conſtitution continued open, as I have ſeen a hole punched in Leather, whereby it was capable of receiving the Bloud, if it had been timely returned: but that being omitted,the extravaſated Bloud forced amongſt the interſtices of the Muſcles up to the *Axilla*, and on the outſide of the Arm down beneath the Elbow, in which places we found a quantity of ſtinking grumous Bloud.

5. Obſervat. A Man being much afflicted with a Tumour in his right Arm, occaſioned by the pricking of an Artery in letting bloud, having tried the endeavours of ſeveral of our Profeſſion unſucceſsfully, ſome whereof had purpoſed the taking off this Arm, at the laſt I was ſent for, and met Mr. *Arris* and Mr. *Hollier* there. Mr. *Gardner* was his Chirurgeon. The Tumour was large, much inflamed, and painful, with little or no Pulſation: but the Accident which gave riſe to the Tumour enough confirmed it an *Aneuriſma*. My opinion was, that a Tumour ſo inflamed was not capable of ſuch Bandage whereby they might hope to return the Bloud back into the Artery. Nor indeed was it reaſonable to ſuppoſe that ſuch a putrefactive heat as ſeemed to be incloſed in that Swelling was capable of being thruſt back or retained long there, without making its own way by a Gangrene: and of what danger ſuch an Eruption might be to the Patient,if a Chirurgeon were not at hand,I left to their conſideration. Then in order to the removal of the Tumour there were but two ways, *viz.* Amputation of the Arm,or cutting into the Tumour,and making Deligation of the Artery; which latter I commended to them. They aſſented to the Deligation: only the Patient deſired a day or two to prepare himſelf. We applied *Empl. è bolo*, with a moderate Bandage to reſtrain the increaſe of the Tumour the while. The fourth day after we met again, and, having all things ready, the Patient was placed in a Chair towards the light. I took off the Dreſſings,and made a Ligature four fingers breadth above the Tumour, on which Mr. *Hollier* made a gripe. Some other held the Hand and lower part of the Arm, whilſt I made Inciſion down the length of the Tumour. That done,I threw out the grumous Bloud with my fingers,and cleanſed the Wound with a Sponge. Then deſiring Mr. *Hollier* to ſlacken his hand, upon

upon which the Artery discovered it self by the bloud spurting out, I passed my Needle under the upper part of the Artery, and tied that, and cut off the end of the Ligature. Near the Wound made in the Artery by letting bloud there was a cartilaginous body formed, which hindred my coming to the Artery; I cut it away, then passed my Needle, and made a second Ligature. We dressed it up with Pledgits spred with the common Digestive *ex terebinth.* dipt *in pulv. Galeni*, and applied *Empl. diachalcit.* malaxed with *ol. ros.* and rowled it up to the ease of the Patient; then put him into his bed, & prescribed him an Anodyne draught to take that night. The next day I visited him, and found him in much ease: he had slept well with half the draught was designed him, and was not troubled with those fainting fits which he had been subject to before the Operation. The third day we took him out of his bed to dress his Arm. In taking off the Dressing we found all safe, and the Lips of the wound tending to digestion. Mr. *Hollier*, who held the Arm above, seeing no Bloud flow from the Wound, for experience sake griped it harder: upon which the Bloud of a sudden dropped from the fleshy parts and Capillaries in great drops, as if it had been pressed out of a Sponge. I wondered at the manner of its bleeding, not minding what he had done: but he slackning his hand, it ceased as soon. Which may shew the ill consequence of over-hard binding in the dressing of Wounds, Ulcers, *&c.* We dressed the Wound with the Digestive as before, and so continued it till the Wound was well digested. From that time we dressed it with Sarcoticks, rubbed the loose flesh with the Vitriol stone, and hastened the cicatrizing of it with *aq. medicamentos.* &c. I saw the Ligatures fall off, and the Wound cicatrizing, then left it to his Chirurgeon, it being at that time indeed almost cicatrized. The Patient made me a visit a while after, and shewed me that he could use that Arm as well as the other.

Caution.

What more concerns an *Aneurisma* you may see in the Chapter of *the Wounds of the Veins and Arteries.*

Chap. XVII.

Of an Herpes.

Herpes hath its name *à serpendo*, from its creeping quality: it is also called *Formica ambulativa & corrosiva*; and, by *Celsus*, *Ignis sacer*. It proceedeth from pure Choler (as it is yet thought) separated from the other Humours, and cast out into the Superficies of the Skin.

Names.

There are three Species of them, differing from each other according to the Humour of which they are generated. The first is the *Simple Herpes*, proceeding from pure Choler. The second is the *Herpes miliaris*, wherein there is an admixture of a salt waterish Humour. The third Species is *Herpes exedens*, where the Humour added to the *Bilis* partaketh of much acrimony, and proves exceeding corrosive.

3. Species.

The *Simple Herpes* is a Pustule of a yellowish inflamed colour with a sharp head: it cometh soon to maturity, and the Matter is visible in the upper part of it whilst its *basis* is inflamed; but in the eruption of the Matter the Inflammation goeth off, and it healeth. In the Face they frequently appear single,

Simple Herpes.

and

and ſo they will in other parts of the body, and are generally taken notice of as cholerick Puſtules: but they do often appear over-ſpreading the Back, Sides, or Breaſt, and are accompanied with an *Eryſipelas*, and have a Fever joined with them; being in this caſe known by the name of *Shingles*.

Herpes miliaris. The *Herpes miliaris* riſeth in a cluſter of ſmall Wheals little differing from the colour of the Skin. They are firſt diſcovered by their itching, and being rubbed or ſcratched they weep a thin wateriſh Humour: from that time a Scab appeareth in the head of each of them of the form of a Millet-ſeed, from whence the Tumour hath its name. As the Puſtules heal in one place, they uſually break out in another.

Herpes exedens. *Herpes exedens* is ſaid to be rather an Ulcer than a Tumour, but is indeed an Ulcer with Tumour, it riſing in the Skin in a ſmall Tubercle, on the top whereof there appeareth an Ulcer like a pin-hole. It is for the moſt part without Inflammation or pain. When it ariſeth alone it is ſcarce taken notice of, it mattering but little unleſs it be picked, and then it ſcabs ſoon after with a thin Scurf. But in progreſs of time it ſheweth its ill condition, by eating away the Skin, and indurates the Fleſh underneath and Parts about. Sometime I have ſeen theſe Ulcers ariſe in the Skin ſomewhat diſtant one from another, making an unequal furrow; as from the upper Lip by the Noſtril creeping to that ſide of the Noſe, ſo to the ridge of it, and down again to that corner of the Eye, healing in ſome places while it eat deep into the fleſh in others.

This *Herpes* in *Lues venerea* frequently ariſeth from a *Simple Herpes*, while the Matter is ſhut in by the Scab, it corroding underneath, and making an Ulcer; when it breaketh out, appearing like a Hony-comb, bigger or leſs, and of a round or long figure, accordingly as the Diſeaſe hath more or leſs malignity.

Prognoſtick. The *Simple Herpes* is neither dangerous, nor difficult of cure; but in the Face it may be exaſperated by picking or ſcratching, & grow corroſive, otherwiſe it will heal of it ſelf. When it firſt overſpreads a Part, the Patient is indiſpoſed with Fever; but as it cometh to Matter, that indiſpoſition goeth off.

As an *Eryſipelas* doth ſometime terminate in a *Herpes*, ſo an *Herpes* is frequently accompanied by an *Eryſipelas*.

The *Herpes miliaris* is without Fever, but is difficult of Cure, eſpecially if it affect the Face, Noſe or Ears. If the Cure be neglected, it eateth deep into the Fleſh; and then, in what Part ſoever it is, the Cure is hard to accompliſh.

The *Herpes exedens* is moſt difficult of cure, and if it be not timely treated, it certainly terminates in a *Phagedæna* or Cancer: but when it ariſeth from *Lues venerea*, the very worſt is curable.

Cure internal. As to Internal Remedies; a *Simple Herpes* is cured much like an *Eryſipelas*, by evacuation and contemperation of choler. *Herpes miliaris* cometh near to the nature of an Itch, and is to be treated with Purgatives and Alteratives much of the ſame kind with what is propoſed for that. For the Cure of the *exedens* I refer you to the Treatiſe of *Ulcers*.

Cure external. External Applications alſo in the *Simple Herpes* do imitate thoſe of *Eryſipelas*, but ought to be more drying; as *polygonum*, *equiſetum*, *millefolium*, *plantag.* *ſolanum*, &c. whoſe Juices may either be applied upon cloaths wet therein, or elſe be mixed with *lithargyrum auri & argenti*, *ceruſſa*, *tutia*, *bolus armen.* ſo as by addition of *ol. roſ. myrtill.* and Wax to make Cerots or Ointments: as, ℞ *ſucc. plantag. ſummit. vitis*, *polygoni*, *an.* ℥ iij. *tutiæ præp. ceruſſæ*, *an.* ℥ ß. *litharg. auri* ℥ j. *antimonii* ℥ iij. *ceræ q. ſ. ol. roſ. & myrtill. fiat Cerat.* Our Diſpenſatories abound with Compoſitions fit for your purpoſe, as *unguent. album camphor. diapompholyg. tutiæ*, *deſiccativ. rubr. nutrit.* mixed with *populeon.*

Herpes miliaris requireth a more powerful exſiccation: *viz.* ℞ *pingued. porcin.*

cin. vitulin. vaccin. an. ℔ ß. *fol. alleluiæ, chelidonii, ſedi minoris, plantag. ling. canis, an.* M. j. *calcis ter extinctæ* ℔ ß. *chalcanthi pulver.* ʒ j. *flor. æris* ʒ iv. *omnia ad invicem conquaſſentur, & ſimul dimittantur marceſcere per hebdomadam; poſtmodum addantur aq. plantag. & ſucc. granator. an.* ʒ iv. *deinde bulliant lento igne uſque ad conſumptionem aquæ & ſucci, & colentur; colaturæ adde lithargyri aur. & argent. an.* ʒ iv. *boli armen. minii, an.* ʒ j. *pulv. cort. granat.* ʒ ß. *terebinth. clariſſimæ* ʒ iij. *iterum bulliant, & cum cera alb. fiat Unguentum.* Or, ℞ *axung. porcin. ol. laurin. an.* ʒ ß. *unguent. roſat.* ʒ iij. *auripigment.* ʒ ij. *Merc. ſublimat.* ʒ ß. *argenti vivi ſaliva jejuni extincti* ʒ ß. *lithargyr. auri, argenti, & ceruſſæ, an.* ʒ iij. *Miſce in mortario marmoreo pro uſu. Merc. dulcis, Merc. præcipitat. arcanum corallinum* mixed with *unguent. roſatum*, have ſometime ſerved me to good purpoſe in the curing of this Diſeaſe in Children and tender Bodies; but in the more rebellious ſort we foment them with good *Lixivium* or an Ablution of Turbith. Spirit of Vitriol and the Cauſtick-ſtone it ſelf may be alſo neceſſary. And this is it which makes an *Herpes* in the Face ſo hard of cure, we not daring to apply ſuch Corroſives there, eſpecially not on the Noſe, where the Cartilages and Bones lie ſo near the Skin.

A Girl of about ſix years of age was brought to me with many ſmall angry Wheals riſing behind her left Ear and down that ſide of her Neck towards that Clavicle, with an Inflammation about them. I applied an *Empl. de cerat. ad herpetem*, to aſſwage the heat, and defend her cloaths from ſticking to them, and adviſed her Mother to keep her warm. A few days after they brought her to me again. The Inflammation was then going off, and the *Puſtulæ* on the lower parts burſt; but thoſe behind her Ear where white and full of Matter. I opened them all, and diſcharged the Matter, then dreſſed them with *unguent. tutiæ* upon Pledgits of Lint; by which in three or four days after they were dried up and cured. 1. Obſervat. of an *Herpes* behind the Ear.

A Gentleman of about fifty years old, through ſome diſorder in Diet, heated his Bloud, and was indiſpoſed with a Cough and Shortneſs of breath: he had alſo many Puſtules riſen upon his Breaſt, Back, and Sides, with an Inflammation partaking of an *Eryſipelas*. I let him bloud about ten ounces, and preſcribed him a Clyſter, alſo a pectoral Ptiſan, and adviſed him to forbear ſtrong drinks, and to make his diet of Water-grewel, Panado, and the like. I ſent him ſome of my lenient Cerote to apply, in caſe any of the Puſtules ſhould matter and ſtick to his linnen. Three or four days after they came to maturity, and brake, and dried as the former: while they dried he was purged with Whey and Manna, and a few days after was well and abroad. 2. Obſervat. of an *Herpes*.

A young Gentlewoman of about eighteen years of age, upon a ſuppreſſion of the *Menſtrua*, was afflicted with many angry *Puſtulæ* on her right Hand from her Wriſt to her Fingers ends, which by ill treating ulcerated into one another, and excoriated all over. I dreſſed them with *unguent. album camphorat.* beaten up with *album. ovi*, then let her bloud in the Arm, and adviſed her a Clyſter of Milk and Sugar. The next day I purged her with an opening Apozeme, ſuch as is propoſed in the Chapter of the *Itch*; which ſhe repeated often. The day after her firſt Purge I looked upon her Hand, and, finding it all mattery, bathed it with a Decoction of *polygonum, ſummitat. equiſeti, rubi*, &c. then dipt cloaths in ſome of the ſame, and rowled up each Finger by it ſelf, leaving a ſpace here and there between, on which I applied Pledgits ſpred with *unguent. de lithargyro*. I dreſſed up the Hand after the ſame method, and adviſed her to renew the Dreſſings thrice aday. By this and other drying waters it cicatrized here and there; but then an Inflammation aroſe above the Wriſt with many Wheals. Upon the ſight of which I gave her ϑ j. *calomel.* over night, and 3. Obſervat. of an *Herpes*.

and a draught of her purging Apozeme in the morning. By the repeating it three or four times, with intermiſſion of ſome days, I took off the Fermentation in her bloud; and by the bathing that Hand and Arm with *lac butyriatum*, and dreſſing it with *unguent. de lithargyro* and ſuch like, I cured her. It being then the ſeaſon to drink the Waters, I recommended her to *Epſom*, and from thence to *Tunbridge*: they paſſed well, and ſhe recovered her perfect health.

4. Obſervat. of an *Herpes*. A Perſon of Honour, of a full Body abounding with ſharp Humours, was ſeized with an *Herpes* on his right Leg. I dreſſed it with a mixture of *unguent. nutritum* and *populeon*, and propoſed Bleeding and Purging: but we being upon a march, our lying in the fields the nights and marching all day was inconſiſtent with ſuch Rules; whereupon it inflamed and ſwelled very much, many Wheals aroſe, and fretted one into another, with great Excoriation. I fomented the Leg in the mornings, and ſometime in the evening, (as we had time) with a Decoction of *polygonum*, *plantag. equiſet. flor. roſ. rubr.* and dreſſed it with *unguent. album camphorat. cum albumine ovi*, with an addition of *unguent. tutiæ* ſpred upon little pieces of Linen, and laid on at ſuch diſtance as the Matter might get out between, then rowled on a Compreſs preſt out of the Fomentation. But the Fluxion was ſo great, and the Matter ſo very ſharp, that for a while it would yield to no Applications. But after he had the conveniency of a Coach to reſt his Leg, I made a ſhift to cicatrize the Ulcerations by applying bits of Linen dipt in the aforeſaid Decoction, and laying Pledgits ſpred with *unguent. tutiæ*, &c. upon the edges of the Ulcerations over the Linen, with Compreſſes and Bandage. The Matter was well diſcharged between Dreſſings, by which means the Ulcer was digeſted and healed.

Of the Cure of theſe Ulcerations with *Intemperies humida* you may read more particularly in their proper Chapter in the Treatiſe of *Ulcers*.

5. Obſervat of *Herpes miliaris*. One came to me having an extream itching in the Palm of one of his hands. I looked upon it, and ſaw many ſmall white Wheals ſcarce diſcernable: thoſe which he had ſcratched had ſmall Scabs on the heads of each one of them like Millet-ſeed: they ſeemed dry, but were encompaſſed alſo with Wheals, and did all itch very much. He had alſo ſomewhat of the ſame *Herpes* on his Thumb and Fore-finger of the other hand. I purged him with *pulv. cornach.* and ſent him a pot of the *unguent. calcis* preſcribed in the method of Cure to dreſs them with. I afterwards purged him with *pulv. cornach.* and *Merc. dulcis*: by which, and the addition of a few grains of *Merc. ſublimat.* to the aforeſaid Unguent, the *Herpes* was dried up in the ſeveral Parts.

6. Obſervat. of *Herpes miliaris*. A Woman came to me with an Ulcer in the Sole of one of her feet. It was an unequal dry Ulcer, eating into the Skin to the Fleſh of the compaſs of Half a crown: it was not much painful or inflamed, otherwiſe than as ſhe heat it by walking on it. I cauſed it to be waſhed with an Ablution of Turbith, and applied *unguent. calcis* upon it, and afterwards purged her with Catharticks and *Calomel*. Thus the Ulcers dried, but afterwards roſe again in the ragged Lips. Upon ſight whereof I rubbed thoſe Lips all off with the Cauſtick-ſtone ſo far as I could judge any of that Humour lurked; then applied *unguent. baſilicon* hot upon Pledgits, with ſome of the aboveſaid Cerote over all. The third day after, when I thought to have ſeen a deep Ulcer, I found it flat and dry, and, ſcraping off the Ointment, I alſo brought off the Slough, and ſaw the Skin ſmooth and even perfectly well: by which it was evident that the Diſeaſe was only in the Skin.

7. Obſervat. of *Herpes miliaris* and a *ſimple Herpes*. A Gentlewoman about fifty years of age, upon the ceaſing of the *Menſtrua*, was afflicted with an itching on the right ſide of her Head above her Ear. It growing vexatious, and not yielding to common Remedies, ſhe came to me. It was an *Herpes miliaris* about the breadth of an Half-crown-piece amongſt her

her Hair. Her often ſcratching it had exaſperated it, and the ſharp Humour which iſſued from it had fretted the Skin behind her Ear downward, and in progreſs of time that became ſerpiginous, and was, when I ſaw it, covered with white branny Scales. The Humour dropping down from theſe had then inflamed the Parts beneath, and many fiery *Puſtulæ* were there riſen, which ſpred down to that Clavicle. I dreſſed theſe latter with *cerat. Galeni*, let her bloud that evening, and the next morning purged her with Whey, Manna and *crem. tartar.* and that afternoon, when her Phyſick had done working, I dreſſed the *ſimple Herpes* with the Cerote as before; then clipt off the Hair from the *Herpes miliaris* and parts about, and with a ſtrong *lixivium* bathed that *Herpes*, and waſhed off the branny Scales; then applied that Unguent with the *auripigmentum* mentioned in the method of Cure. It was very painful, but by twice applying the malice of the Diſeaſe was extinguiſhed; and afterward by anointing it with *unguent. roſatum* the pain was removed, and the *Herpes miliaris* and *Serpigo* appeared well cured. The *Herpes* beneath mattered, and were dried up with the common Epuloticks. I then made her Fontanels in her Legs; ſince which time ſhe enjoys good health.

A Man long vexed with an *Herpes miliaris* on the inſide of his Thigh was cured by the ſame method.

Chap. XVIII.

Of an Oedema.

HAving ſhewed you how *Bloud* and *Choler* become offenſive when diſturbed and thrown out of their proper Sphere, I ſhall now proceed to ſpeak of that Tumour which hath its riſe from the *Pituita* or *Phlegm*, and is known by the name of *Oedema*.

It is a ſoft cold Tumour without change of colour, pulſation, heat or pain, unleſs it be from the diſtenſion of the Part it affects. Definition.

The *Cauſe* of *Oedema* is, as in other preternatural Tumours, Antecedent, and Conjunct. Cauſes.

The Antecedent Cauſes are either remote, as default in Diet, Air, Exerciſe, *&c.* alſo old Contuſions, Luxations, Fractures, *&c.* or more immediate, as the pituitous Humour abounding in the Body.

The Conjunct Cauſe is the ſame Humour collected into a Tumour, which is done for the moſt part by Congeſtion, theſe cold Tumours being rarely made by Fluxion.

Oedema in it ſelf is not dangerous; people of groſs bodies and good fellows are frequently ſubject to them, yet live to old age. But in Conſumptive and Hydropical bodies it is of ill conſequence, not as it is a Diſeaſe, but as it foreſhews a decay of native heat. Thoſe *Oedemata* that attend accidents of Wounds, Fracture, *&c.* are not dangerous, nor difficult to cure: but if an *Oedema* grow hard and painful, there is fear of a *Scirrhus*; or if it ſuppurate, of a long and tedious Cure. Prognoſtick.

In the *Cure* of an *Oedema* three things are required: firſt, preventing the generation of the pituitous Matter; ſecondly, evacuating the groſs Humours that abound in the body, which is the immediate Cauſe of the Diſeaſe; thirdly, the Cure of the Tumour it ſelf, which is effected by external Remedies. Cure.

The first of these is performed by regulating the Patient in his manner of living; as in Diet, Air, Exercise, Sleeping, Watching, Passions of the mind, *&c.* As, that his Bread be of pure Wheat, well baked with Correctives, as Carraway, Fenel, or Anise-seeds: that his Meat be Flesh of good nourishment and easie digestion, Mutton, Veal, Pullet, Rabbit, Chicken, *&c.* that his Drink be Ale well boiled and medicated. Wine is also commended; but moderation in drinking is desired. The Air ought to be dry and heating; the very removal into hotter Countries being often the Cure of this Disease. Exercise is required, to stir up the native heat, and to waste the Crudities. Sleep in the daytime is forbidden, and ought to be moderated in the night. Melancholy is to be avoided, and Venery if the Body be weak.

The second consists in prescribing such Remedies as may attenuate, open Obstructions, and evacuate the pituitous Humour. Bleeding is not alway proper, yet may be admitted if there be *Plethora*. Purging is necessary, and in order thereto you may begin thus; ℞ *rad. apii, petroselini, an.* ℥ß. *flor. persic. genistæ, an.* P. j. *senæ* ℥ij. *salis tartari* ℈ij. *agarici inclusi in nodulo* ℥jß. *zinzib.* ℈j. *coquantur in aquâ font. ad* ʒviij. *colat. adde syr. de spina cervina* ʒx. *pro duabus vicibus.* Or, ℞ *sem. carthami contusi* ℥iij. *senæ* ℥ij. *flor. sambuci, persic. an.* P. j. *fiat Decoct. in aq. font. & vin. alb. ad* ℥iiij. *colaturæ adde aq. cinnamomi hordeat. cochl.* iij. *syr. ros. cum agarico* ℥j. *Misce.* Or you may purge him with this following Apozeme; ℞ *rad. ireos* ℥j. *cort. inter. sambuci, ebuli, an.* ℥ß. *rad. fœniculi, petroselini, an.* ℥vj. *summitat. centaur. min. agrimoniæ, marrubii alb. an.* M. j. *flor. genistæ, sambuci, an.* Mß. *sem. fœnic. carui, an.* ℥jß. *fol. senæ* ʒx. *turbith, sem. carthami, an.* ℥iij. *fiat Decoctio s. q. vini & aquæ ad* ʒ. *part. stent in infusione per noctem, mane colentur* ʒxij. ℞ *colaturæ* ℥iv. *syr. de spina cervina* ℥j. *Misce; fiat haustus; reiteretur per aliquot dies.* The stronger Catharticks are, *pil. è duobus, extract. rudii, pil. cochiæ minor. pulv. diaturbith cum rhabarbaro, diasen. cornachin.* &c. Six drams of *Electuar. caryocostin.* is a good Purge for the poorer sort. Vomiting is of great use: and, if the Tumour be in the inferiour or remote Parts, it may be as useful for making of Revulsion, if the Patient labour not under a *Phthisis*. Your Vomit may be *oxymel scillit.* or the emetick Wine, *sal vitrioli*, &c.

You are also to have regard to the weakness of the Stomach, and endeavour the strengthning it, not only by outward Applications, as Fomentations of *absinth. card. benedict. scord. cassiæ lign. calam. aromat.* &c. but also with stomachical Unguents and Emplasters, of which you may find sufficient set down in the *London Dispensatory*. Cordial Electuaries and digestive Powders are also useful, whereof I shall give you some. ℞ *conf. anth.* ℥ij. *cort. citri condit.* ℥ß. *nuc. moscat. condit.* ℥vj. *spec. diarrhod.* ℈ij. *cum syr. de cort. citri & syr. garyophyll. fiat Electuarium:* of which the Patient may take the quantity of a Nutmeg often in a day. Or this; ℞ *sem. anisi & fœnic. cond. an.* ℥j. *coriand. & carui condit. an.* ℥jß. *cinnam. pulv.* ℈iv. *spec. aromat. rosat.* ℥ij. *fiat pulvis.* A spoonful of this may be taken after Dinner, or at any other time. Also Decoctions of *sarsaparilla, lign. guaiaci, sassafras*, with Antiscorbuticks, *&c.* adding Wine, *aq. mirabilis*, or the like cordial water to it, to make it more grateful and hearty in the Stomach.

The third concerneth the handling of the Tumour it self: and that varies, according as it is in its beginning, state, or declination.

In the beginning, the Medicaments may be such as do moderately repel, not violently, lest the Humour of which the Tumour proceedeth, being for the most part gross, be thereby made more tough: besides, Repellents are not so proper in congested Tumours. When we use them, it is rather to strengthen the Part, than to repel; therefore we mix with them such as have an attenuating and

and discutient faculty. One of the milder is Bay-salt with Oil of Olives. In small Swellings proceeding from the weakness of the Part Brandy-wine, or a Solution of Bay-salt in *Spanish* Wine, or the Partie's own Urine, may serve sufficiently to attenuate and dry up the humidity, and strengthen the Part.

In the state, when the Tumours are large, they require Medicaments more resolvent and discutient: and the better to dispose them to rarefaction, you may begin with such a Fomentation as this: ℞ *summitat. absinthii, abrotoni, origani, calaminthæ, pulegii, sambuci, chamæmeli, rutæ, salviæ, an.* M. j. *bacc. lauri, juniperi, an.* ℥j. *sem. faniculi, dauci, carui, cymini, an.* ℥ß. *contundantur crasso modo, & in aq. q. s. bulliant ad dimid. partis consumptionem; colaturæ adde spir. vini q. s. fiat Fotus.* After which you may embrocate with this; ℞ *ol. laurini, rutacei, de castoreo, an.* ℥ij. *salis marini,* ℥ij. *Misce:* and apply this Cataplasm; ℞ *farinæ fabar. hordei, an.* ℥vi. *summitat. absinth. rutæ, organi, abrotoni pulv. an.* ℥ß. *flor. sambuci, chamæmeli, ros. rub. pulver. an.* ℥iij. *coquantur in prædict. fotu ad cataplasmatis consistentiam, addendo in fine aluminis & sulphuris vivi an.* ℥j. *olei rutacei & mellis com. q. s.* If these be not enough discutient, you may make the former Decoction in a *Lixivium*, and the Cataplasm in the same, and embrocate with such like: ℞ *ciner. brassicæ* ℥ij. *unguent. dialthææ* ℥iij. *ol. cham. chymic.* ℥j. *Misce. Emplast. de minio cum sapone, Emplast. diasulphur.* are also proper to discuss these Tumours.

In the declining of the Tumour foment with such things as may be discutient, and corroborative to strengthen the Part: ℞ *summit. origani, majoranæ, flor. anethi, cham. ros. rubr. an.* M. j. *balaust. nuc. cupress. calic. gland. an* ℥jß. *calam. aromat. ligni aloes, an.* ℥ij. *coquantur in vino rubro, & fiat Fomentum.*

Bandage is of great help in the Cure of these pituitous Swellings: indeed we can do nothing considerable without them. Those I especially recommend to you are the laced Stocking, Trowze, Sleeve and Glove. They, as sitting most firmly, may be worn with the greatest advantage, and with the least trouble or prejudice to the health of the Patient; yet do they require your consideration and care how they be laced: for by the unequal hard lacing of them you may raise a Tumour, and by an equal over-streight lacing you may emaciate the most fleshy Leg. Many instances may be given of the former, and I shall give you one of the latter.

A person of a sedentary life, who had been vexed with an Ulcer in one of his Legs, was advised by his Chirurgeon to wear a laced Stocking; and having thereby cured the Ulcer, he thought fit to continue the use of the Stocking some while, which he did: but, minding more his Study than his Leg, he laced the Stocking every morning streighter, till his Leg became so weak that it could scarce support his body. I was fetched, and surprized to see his Leg so dwindled away, wondering how he could lace it so small without causing Inflammation, or indeed suffer it to be so extenuated without taking more timely notice of it. I presently caused the Stocking to be unlaced, and his Leg to be bathed with warm water, and embrocated with *ol. lumbricor.* by which it plumped again in few days, and recovered its former strength.

1. Observat. of a swelled Hand.

A Gentleman of about thirty years of age, having laboured long of a Quartan Ague, was afflicted with a phlegmatick Swelling in his right Hand from the Fingers ends to the Arm, as full as the Skin could hold, both back and palm, the Joints stiff and useless. The Tumour was painful by reason of the great distension of Parts, and was thereby rendred hard, yet yielded to the impression of my Fingers. Doctor *Lenthall* had purged him frequently; but the Tumour not yielding thereto, he put him into my hands. I began my work with the milder Fomentation prescribed in the method of Cure, and embroca-

ted it with *ol. cham. & rutac. cum ſale comm.* applied over the whole Swelling *Emplaſtr. diaſulphuris*, rowled it up, and placed it high up to his Breaſt. I continued this method ſome days without much advantage, then left off the uſe of the Emplaſter, and applied a Cataplaſm *ex far. hordei*, &c. as it is ſet down in the method of Cure, and continued the Fomentation and Embrocation; by the uſe of which the Tumour did ſomewhat diſcuſs. But, according to my long Obſervance, theſe crude Tumours cannot throughly diſcuſs without the help of a more ſtrict Bandage; therefore, having thus diſpoſed them for Bandage, I cauſed a Glove to be made of ſtrong Leather, ſlitting the back and fingers, and making Eylet-holes to draw it cloſe. Then having applied the Cerote above preſcribed, with a Compreſs of cloath over it, and a piece of Vellum to defend the Hand from the Lace, I laced the Glove on moderately ſtreight to the eaſe of the Patient, and ſtreightned it ſtill daily. But from that time I did not dreſs the Hand more than once in four or five days, and then I fomented and dreſſed it as I had done before, laying Compreſſes upon the Palm of the hand and elſewhere as I ſaw occaſion. As the Swelling diminiſhed the Glove became too big; we therefore put on another leſs, and began again to purge him, and preſcribed him *decoct. ſarſæ lign. guaiaci*, &c. and from that time we purged him once a week with *extract. rudii & calomel.* By this method I diſcuſſed this Tumour in the midſt of Winter, he not keeping his Chamber but when he took Phyſick: yet there remained a ſtifneſs in the Joints of the Wriſt and Fingers, and the Arm was extremely emaciated. For the nouriſhing of it I made a Fontanel in that Arm; and in order to the relaxation of the ſtifneſs of the Joints of his Hand, I fomented them with emollient Herbs boiled in Fleſh-broth, and embrocated them daily with *ol. lumbricor.* applying a Cerote of *unguent. dialthææ* and Wax over all. His Hand was alſo ſometimes put into Grains or a Beaſt's Belly. After which we dreſſed his Hand, and laced on the Glove, as before we were accuſtomed to do, and directed him to wear a furred Glove to keep it warm. By this method his Arm grew fat, and his Hand flexible and ſtrong before *March*.

2. Obſervat. of ſwelled Legs.

A Widow-woman aged fifty ſix years, of a groſs Body, having been long ſubject to Swellings in her Legs and Feet, was at laſt thereby confined to her Bed. They were pituitous, and yielded to the impreſſion of my fingers; yet were hard, and ſomewhat inflamed, and painful: which latter was occaſioned, I ſuppoſe, from the extraordinary influx of Humour. I purpoſed to have begun my Cure with Purgatives: but ſhe, having no uſe of her Legs, would not be perſwaded to Phyſick. I fomented her Legs and Feet one after another with the milder *Fotus* preſcribed in the method of Cure, embrocated them with *ol. cham. lilior. cum aceto*, and applied a Cerote of *unguent. dialth.* with an addition of Wax, and ℥j. of *ol. cham. chymic.* with good Bandage from the Toes to the Knee. I repeated this way of Dreſſing twice aday, till I had mollified and reſolved ſomewhat of the Tumour and hardneſs; then made the Fomentation more diſcutient by the addition of Salt and *Sulphur viv.* and ſome days after cauſed a pair of laced Stockings to be put on, and laced them daily ſtreighter. But from that time I dreſſed her Legs but once in three or four days, unleſs it were that the Skin were fretted by the Salts or her ſcratching them. In which caſe I took them off, and bathed her Legs with warm water, and applied *cerat. Galeni* on them. Thus her Feet and Legs were made leſs, & her Stockings taken in accordingly, till the Swellings were quite diſcuſt, and her Legs and Feet reſtored to their true ſhape, which was in leſs than eight weeks; during which I purged her with that Apozeme preſcribed in the method of Cure, and made her Fontanels in her Legs, and continued the uſe of the laced Stockings. I thought this Widow had been dead, till the laſt

laſt Summer ſhe ſent to me for an Emplaſter for a pain in her Shoulder; it being the year 59. in which I cured her.

3. Obſervat. of ſwelled Legs, &c.

A Perſon of Honour about fifty years of age, of a corpulent full Body, whom I had ſeen many years before in *France* afflicted with pituitous Swellings in his Legs and Feet, came over into *England*, and put himſelf into the hands of Sir *Fr. Prujean*, he then labouring under a complication of Diſeaſes, of which thoſe Swellings in his Legs and Feet were only a Symptom. By Chalybiats and Antiſcorbuticks he was relieved, and reſtored to a tolerable good health; but thoſe Swellings in his Legs did not leſſen. Upon which conſideration I was ſent for, and propoſed the laced Stockings as the only remedy. It being allowed of by the Phyſician, I fomented his Legs with the milder Fomentation above preſcribed, embrocated them as above ſaid in the preceding Obſervation, and rowled them up from the Feet above the Knees. After three or four days I put him on laced Stockings with Knee-pieces, and by a moderate lacing of them reſtored the Legs and Feet to a better ſhape than they had been in many years before, and he injoyed a better health. After the wearing them ſome months longer, his Legs grew ſo well, that he frequently diſcontinued the uſe of them many months: yet when he perceived any fulneſs in them, he did put them on again, without adviſing us about it. Nine years after this Perſon was diſeaſed with a Carbuncle: after the Curing whereof his Legs, Thighs and Belly ſwelled extraordinarily. By Purging and Antiſcorbuticks his Belly ſunk; and by laced Stockings and Trowzers the Swellings in his Legs and Thighs went off, and they continued well without farther uſe of the laced Stockings, he enjoying a good health ſome years afterwards.

4. Obſervat. of a ſwelled Thigh.

In the time of the laſt great Plague, while I was in the Country, I was fetched to a Perſon of worth, of about ſeventy years of age, lying in bed diſeaſed with a cold phlegmatick Tumour in his right Thigh, ſoft and yielding to the impreſſion of my fingers. Doctor *Bowles* had been with him, and preſcribed a Fomentation with Embrocations to be daily applied. I approved of what had been done: but the weather being then extream cold, the ground covered with Froſt and Snow, I thought he might get cold in the time of Dreſſing; and beſides, without a ſtrict Bandage it was not likely to remove that Tumour. Therefore I offered to their conſideration, whether a Flannel Trowze might not be made to lace ſtreight upon that Thigh, to cheriſh the native heat of the Part, and defer the Cure of the Tumour till the Spring. The Patient approved of it, & declared that he would return to *London* about that time, and conſult us there in order to his Cure. This being his reſolution, I directed his Servants to make a Trowze of a fine Dimity, lined with a ſoft Flannel, with Eylet-holes, to lace on the out-ſide, with a Waſt-band fitted to the upper part of it. The Trowze being made, I ſaw it laced on, a piece of *Spaniſh* Leather being placed under the Lacing, to defend his Thigh from being hurt by it. The lower part of the Trowze was tacked to a Cotton Stocking he put on that Leg. I deſired (in caſe that Leg ſhould ſwell) they would put on a laced Stocking with a Knee-piece. After I was gone, there were ſome Objections made againſt this Bandage: but the Patient, finding eaſe by it, continued the uſe of it, and came to *London* in the Spring of the year, & ſent for Sir *Fr. Prujean*, Doctor *Bowles*, and my ſelf, to meet Sir *Edw. Alſton* and Mr. *L.* a Chirurgeon at his houſe, to conſult his health. We met, and found the Patient walking in a large Dining-room. He gave us an account of the Swelling in his Thigh, and how it was cured by the Bandage I had directed in the Country. He alſo related to us how he had been over-perſwaded to have the Calf of that Leg bliſtered, and of the pain it gave him, and that a Fontanel had been made in the ſame Leg; which he was alſo forced to heal up by reaſon of the pain.

pain. (These were made after I had been with him.) He farther declared the Objections had been made againſt the Bandage, and ſaid, he had therefore ſent for us together, to have our Opinions how to regulate himſelf for the future. The Phyſicians did all approve of the Bandage, and allowed his wearing laced Stockings on his Legs in caſe they ſhould ſwell, and preſcribed him a ſtomachical Pill and ſome pectoral Syrups to take for a Cough he was ſubject to. Some while after the Patient's Legs ſwelling again, I put him on laced Stockings, which he did wear till they recovered their tone. Afterwards, as occaſion offered, he wore them, or left them off. During the time he wore them, he commonly bathed his Legs with warm water at night (by my direction) once a week to refreſh them, and put freſh Stockings on the next morning. Thus he lived happily ſome years, and died of Old age.

5. Obſervat. of an œdematous Swelling with Apoſtemation, &c.

A Youth aged about 15 years was diſeaſed with the Small-pox, and ſoon afterwards with a *Rheumatiſmus*, which eſpecially afflicted the *Scapulæ* and right *Iſchion*. During theſe Diſtempers the Phyſicians endeavoured by frequent Bleeding, Sudorificks, *&c.* to take off the Ferment in the bloud: but the pain increaſed, and that Leg ſwelled from the Hip to the very Toes exceedingly, and ſeemed œdematous. On each of the *Scapulæ* there alſo appeared a large Tumour without Inflammation. Theſe latter we judged to be full of Matter, and accordingly I opened them by Inciſion, and diſcharged a great quantity of purulent Matter. We dreſſed them with *unguent. baſilicon* upon Pledgits. The Swelling in the Leg we ſtuped with a Decoction of warm Plants in a common Lixivie, adding to it ſome Brandy-wine. After we had well fomented it, we embrocated the whole Member with *ol. olivæ* and a Solution of common Salt; then rowled it from the Toes up to the Hip, and placed the Foot and lower part of the Leg ſo high upon Pillows as might hinder the deſcent of the Humours. We alſo laid him upon his left Side, to give eaſe to a large Ulceration upon the *Os coxendicis*, which was occaſioned by his long lying upon that Part. After we had thus dreſſed him, my Kinſman *Jaques Wiſeman* took the care of him, and in four or five days removed the Swelling out of the Foot, Leg, Knee, and lower part of the Thigh, to the great eaſe of the Patient: but the while the upper part of the Thigh and Hip ſwelled the more; alſo an Anaſarcous Tumour ſtretched the *Scrotum* to ſuch a bulk as hindred his lying longer upon his Side. At the ſight of which I ſcarified it with a Lancet, gave vent to that ſerous Humour, applied a warm Stupe on it wrung out of the forementioned Decoction, and thereby freed the *Scrotum* ſo perfectly well as it became no more diſeaſed. The Abſceſs *in Scapulis* continued to matter much, and the Bones were felt bare in both of them: but upon making new Apertions in the Parts more declining, the Matter diſcharged eaſily, and they cured within three weeks after. But in the mean time the Tumour in the upper part of the Thigh became painful daily more and more. Feeling Matter fluctuate in it, we opened it by Inciſion, and diſcharged a large quantity of Matter indifferently concocted: yet we could not by ſearch of Probe diſcover any *Sinus* conſiderable; but, by preſſure with our hands upon the *Os ſacrum* and back-ſide of the *Ilion*, we ſaw the Matter flow freſh out of the Abſceſs: upon which account care was taken to make Compreſſure by Bandage upon that Part. Whilſt this Abſceſs became the care of the Chirurgeons, there was conſideration had of Internals, to diſpoſe the Humours to a healing condition. But, alas! he was ſo emaciated, weak and reſtleſs by reaſon of new Ulcerations which were riſen upon the *Os coccygis* and both Hips, that we only preſcribed him good Broths and ſuch Meat as might nouriſh him; and at laſt, for his more eaſe, we placed him directly upon his Belly; and thereby the Ulcers which had been made by lying on the places afore-

aforesaid were disposed to cure, and the Matter which lodged deep in the upper part of the Thigh and *Ischion*, &c. by this position made its way down by the *Os ilion*, and flowed more plentifully. Upon sight whereof that Opening was inlarged about two or three inches, for the more free discharge. From that time the Matter daily lessened, and accordingly the Tumour diminished, the Abscess and external Ulcerations healed, and the Patient visibly recovered his strength, insomuch that we hoped our work had been well nigh at an end. But he not being able to lie so long upon his Belly, the Ulcerations on his Back and Hips increased, and proved exceedingly vexatious, also the Swelling upon the *Ischion* grew big, and so painful, that it contracted that Leg. Fomentations and Cataplasms powerfully discutient and resolvent were for some time applied: they proving ineffectual, we applied a strong Caustick on the middle of that Tumour, and cut into it: but it appearing dry and callous, we filled up the Apertion with Præcipitate. While we were digesting out that *Callus*, Embrocations were used to the contracted Tendons, and the Ulcerations, *&c.* were daily dressed, whereby in the space of six weeks they were all cured, and the Patient restored to the use of that Leg, but as yet he makes use of Crutches to support his weak body.

6. Observat. of an *Oedema* in the Thigh.

I was sent for to an Infant of about a year old, diseased with a soft white Tumour in the midst of her right Thigh yielding to the impression of my fingers: it was of a very large size, without much complaint of pain. I embrocated the Swelling with *ol. ros.* and Bay-salt, and applied an Emplaster of *diachyl. treat. cum aceto*, with Bandage over it. After a few days continuance of these Dressings, finding the Tumour not to lessen, I fomented it with the milder Discutients set down in the method of Cure, and applied *Emplast. diasulph.* by the use of which it seemed to dissolve; but afterwards it increased again, and became hard, of a dusky colour, and as it were fixed to the Bone. Then I applied a Cataplasm *ex mucilag. rad. althæa, lilior. sem. lini & fænugræci*, &c. endeavouring Resolution: but it inflamed, and suppurated deep amongst the Muscles. I continued Suppuratives, and after a few days, the Matter being more concocted, opened it, and gave vent to a fœtid Matter; then dressing up the Abscess with *unguent. basilicon* upon a Tent, I embrocated it with *ol. ros.* applied the same Cataplasm, and afterwards deterged it with *mundif. Paracelsi.* and incarned and cicatrized it as hath been said in large *Phlegmons*.

7. Observat. of the Thigh.

A poor Woman brought a Child to me diseased, as she was told, of the *King's Evil*; as indeed now-adays every Disease that appears dangerous or difficult of cure is sent to us as the *Evil*. He was about six years of age, and had a large Tumour on the inside of his right Thigh. It was not the *Evil*, but, the Child seeming an object of Charity, I offered her the Cure of it; and at the same time, while the Child lay upon the Table, I made Incision into it without asking leave, and discharged, I believe, near a Chamber-pot full of a crude Matter; then dressed it up with Pledgits of *unguent. basilicon* and *Emplastr. diachalcit.* with Compress and Bandage. The second day she brought him again to me, and then the Skin seemed much contracted; yet it bagg'd, and had near a Porrenger-full of Matter in it. I laid it open that way with a pair of Probe-scissors, and dressed it afterwards once more. My Servants from that time continued to do it, till she thought she could cure it her self.

8. Observat. of phlegmatick Tumours in the Thigh and *Ischion*.

A Child of about four years of age, having been seized with a Fever in the Autumn, languished the Winter following under various Diseases, & was lame by reason of some Swellings about the right Hip and Thigh. Dr. *Denton* was his Physician, who, having recovered the Child to a tolerable measure of health, took me along with him to consider those Swellings. There was one round

Tumour

Tumour near the Hip, the other was on the fore-part of the Thigh, very large: they had all the signs of flatulent Tumours (except the Sound.) We applied *Emplastr. diasulph.* and put on a laced Trowze with a Compress upon the Tumours, and deferred the farther prosecution of the Cure till the weather grew warmer; and then, finding the Tumours unresolved, we fomented them with Discutients boiled in a common *Lixivium*, and repeated the use of the former Emplaster, by which the Tumour on the outside discussed, (if it did not pass its Matter into the other:) which soon after I opened in the most declining part four fingers breadth above the Knee, and, instead of Wind, discharged a large Porrenger-full of a clay-coloured fœtid Matter. The Opening was made by Caustick: it served for the easie discharge of the Matter, which after a few days lessened, and by Compression the Part agglutinated above, and cured without farther inlarging or putting in a Tent.

9. Observat. of an *Oedema* in the Belly.

A Gentleman of about thirty years of age having from his youth been vexed with a fistulous Ulcer in his right Testicle, in progress of time a Tumour arose in the lower Belly over the *Pubes*, stretching to the right Groin. He consulted Mr. *Jenman* and my self. The Swelling was hard and painful, but without Inflammation. We supposed it to arise from an effusion of *Serum* through all the hypogastrick Arteries. That of the Testicle we believed to come from Juices cast in by the spermatick Vessels, which, meeting with a check in their progress, made the whole Testicle scirrhous, and the Ulcer, as I said, fistulous. We begun our Applications to the Tumour with a discutient Cataplasm *ex far. fabar. hordei, sem. lini, fœnugræci, flor. sambuci, cham. pulver. in oxymel.* hoping to scatter the Humour: we also endeavoured Revulsion by Venæsection, Clysters, and lenient Purgatives. Doctor *Short* was consulted, and assisted all along in the Cure. While we were endeavouring to discuss the Tumour, it began to inflame and tend to Suppuration. Upon sight whereof we suppurated it, and opened it by Caustick about two inches long near the *Os ilion*, and discharged a large quantity of Matter. As the Escar separated, we endeavoured Digestion, and cherished the Parts by good Fomentations, adding Compress and Bandage to press out the Matter; the Physician having the while prescribed a *decoct. sarsæ, chinæ*, &c. with proper vulnerary Plants and Balsamicks, purging by intervals. Yet notwithstanding these endeavours, the Abscess became more sinuous, and put us upon a necessity of laying it open the whole length as it lay transverse the Belly. The Matter was thereby more easily discharged; but, by reason of its virulency, it corroded under the Lips of the Ulcer, rendring them sinuous and jagged, and the *Peritonæum* bare in some places. The least application of a Cathæretick exasperated it, *&c.* The rubbing of a callous Lip with the Caustick-stone gave him a fit of the Colick. Upon which considerations we exhibited a few grains of Turbith mineral, which gave him three or four Vomits. By the repeating of that some times he salivated, and the Ulcer afterwards became well disposed and cured. The Testicle was grown to the *Scrotum*, and passed its Matter through it in two several places: there was also another *Sinus* which passed through the body of the Testicle downwards. We had been some while endeavouring to consume the Callosities of these by Emollients outwardly applied, as also by Cathæreticks inwardly upon Tents into the Ulcer: but failing in the latter, we laid open the *Sinus* on the side of the Testicle from one Orifice to the other, and digested and healed it; then pass'd a Seton-needle through the other *Sinus*, & made way beneath for discharge of the Matter. When that lower Orifice was digested, we pulled out the Ligature, and kept it open with a Tent, and thereby drained the Matter from the uppermost parts, and cured the Testicle.

10. Observat. of a Tumour in the Belly.

A Man came out of *Ireland* diseased with a large Tumour in the lower Belly deep

deep under the Muſcles, without Inflammation, hardneſs or Pulſation: it was moſt prominent towards the left *Inguen*, and ſomewhat heated. The Tumour had been long growing, and of late very painful. I applied an *Empl. Cæſaris* over the whole Tumour, and fitted him with a Bracer to bear part of the weight of it, deſigning that way to palliate it. By theſe he was ſomewhat relieved, and made a Journey with ſome of his Friends into the North, purpoſing to drink the Waters at *Knaresbrook*: but by reaſon of his pain he ſtopped at *York*; and, meeting with no hopes of Cure there, he returned hither, and ſent for me. I went, and found him in his Bed full of pain, and that part of the Tumour in the Groin ſwelled and inflamed, and full of Matter, as I thought: but, doubting the ſucceſs, I deſired he would conſult ſome eminent Men of my Profeſſion. He made choice of Mr. *Tho. Hollier*. We conſidered the ſituation of the Tumour, the time and manner of its growth, with the Symptoms all along attending it, and concluded it originally a Tumour by Congeſtion; ſuppoſing the pain to proceed from ſome acrimony in the *Serum*, which falling into this declining Part putrefied. Upon this ſuppoſition we complied with the Patient and his Friends deſires, opened the Tumour in that Groin by Inciſion, and diſcharged about half a large Porrenger of a bloudy *Serum*. We then laid it more open, and, obſerving nothing more to come forth, made a ſearch with our fingers, and, feeling nothing but Fat, dreſſed it up with Digeſtives *ex terebinth.* &c. with Emplaſter and Bandage. The Patient was eaſed of his pain, and reſted well that night. The third day we met again, and found him as well as might reaſonably be expected: but from the time we opened the Tumour he had not been out of his Bed. Taking off the Dreſſings, we found the Tumour ſunk, and a little Matter from the Lips of the Wound; but from the Abſceſs there was only a Gleet diſcharged. We fomented the whole Belly with *decoct. abſinth. flor. cham. ſambuci*, &c. made in Wine, and dreſſed up the Abſceſs with Digeſtives as before. We were not ſatisfied with our work, yet had no Symptoms of its penetration: he breathed well, and his Urine and Stools were good. At our next Dreſſing we ſaw the Ulcer had gleeted much, and the Opening appeared full of a greaſy Fat ſoiled, as the *Omentum* will be after it hath been ſome time corrupted by the air. We pulled ſome of it out, and, having made a Ligature under it, cut it off, and dreſſed up the Patient as before. We were inclinable to think that what we had cut off was part of the *Omentum*: but then why ſhould not the Inteſtines thruſt out? To clear this Doubt, I brought the next day an Injection made of a Decoction of ſome Vulneraries, *ex rad. ireos, ariſtoloch. rot. myrrh. aloe, ſarcocoll. mell. roſ.* and a little *ſpir. vini*, and caſt ſome of it up with a Syringe. It came out again. We repeated the Experiment, till we had well ſatisfied our ſelves that it came all out again: which confirmed to us that the Abſceſs was not within the cavity of the Belly amongſt the Bowels. But the caſting up of this Injection gave the Patient a Colick, upon which we uſed it no more. The Lips of the Abſceſs digeſted well, but from within it only gleeted, and thruſt out Fat, which we daily cut off without the loſs of a drop of bloud, and dreſſed up the Abſceſs with *mundif. ex apio*, continuing the uſe of diſcutient Fomentations and Cataplaſms. We very much deſired to ſee our Patient up out of his Bed: but he apprehended that his Guts would tumble out; and the more Fat we pulled away, the more he deſponded, and in the ſpace of two Months languiſhed and died. I reſolved to open his Body, and to that purpoſe made my Inciſion down from the *Cartilag. enſiformis* to the *Pubes*, and from the Navel croſs over. Then it appeared plainly that the Tumour was made by abundance of a ſoft white greaſie Fat lying between the *Peritonæum* and Muſcles of the lower Belly. The *Peritonæum* was ſound, not

the leaſt tainted,yet lay ſo bare,that the moſt curious Anatomiſt could not by Diſſection more expoſe it.

If this perſon had but roſe out of his Bed to the Cloſe-ſtool, nay, if he had but roſe upon his Knees to urine, the Fat had ſlipt out at the ſame time; for it lay looſe floating upon the *Peritonæum*. After I had removed the Fat,I divided the *Peritonæum*,and there I ſaw all the *Viſcera* ſound and ſweet as ever I beheld in any dead body in my life.

Chap. XIX.

Of a Scirrhus.

What among the Ancients.

Scirrhus hath hitherto amongſt Authors been reputed to have its Original from Melancholy and tough Phlegm: the truth of which I dare not deny before I know what is meant by thoſe words. For in progreſs of diſcourſe the Writers upon this Subject do divide Melancholy into *natural*,and *preternatural*: a Diſtinction by whom begun I do not at preſent remember,but continued and uſed by all Writers of the latter Ages. Men that make this Diſtinction do ſuppoſe the *natural* Melancholy to be the terreſtrious part of the Bloud, but not yet to have exceeded the bounds of a ſanguineous element: *preternatural* to be ſuch as hath contracted a more than ordinarily fixed or terreſtrious quality by a fault in Concoction, which if it be only a Humour ſo fixed, may be called preternatural Melancholy. If the Bloud was very hot and acrimonious, it hath been preſumed to be burnt, and hath gone by the name of Choler aduſt: but then it is not of the ſame kind or family. Of theſe more in the Treatiſe of *Cancers*.

I deſire not to wade into Controverſies of this nature,fitter for the Schools than a practical Diſcourſe: it may ſuffice to give ſuch a notion of Melancholy as may be agreeable to the common conceptions of men verſed in the Faculty.

What truly it is, with its Cauſes.

If we ſo derive our Notion,we may conſider the Bloud to be bred out of *Chyle*,which in the lacteous Veſſels is white,but when it enters the Veins it by degrees groweth to be pellucid,and then is called *Serum*,and in ſome caſes *Pituita*; and at laſt,when it is red,we call it *Bloud*. Which Bloud conſiſts of much Salt and Sulphur,without which neither the animal Spirits nor the ſolid Parts themſelves could be made. According to the degrees of fixedneſs and volatility that theſe Salts and Sulphurs do acquire,the Bloud is more or leſs florid,and the whole Habit of body of a better or worſe Conſtitution. If theſe Parts arrive to their due volatility, the whole Habit is Sanguine: if they be too fixed,it is Melancholick, according to the old phraſe; which is indeed ſo far from being Aduſtion,that it is rather a Crudity, and the body in this caſe differs from a Sanguine condition as a green Apple doth from a ripe one. It being the fault of the Bloud that the *Chyle*, having met with too great acidity in the firſt Concoction,doth not ever acquire a genuine ripeneſs,but is apt upon occaſion to concrete it ſelf upon the Fibres of the Tendons or Muſcles outwardly,and upon the *Viſcera* inwardly: which Concretion,where it happens, is that Tumour which we call *Scirrhus*.

Differences.

The *Differences* of *Scirrhus* muſt be taken from the various mixture that happens in the Juices of the Bloud. For Bloud, being made at ſeveral times, may partake of many ſeveral qualities; ſome of which may be produced in the

Maſs

Mass of Bloud, and some in the Part it self, either by the peculiar Ferment thereof, or else by the alteration it may receive from applications of Medicaments. If a false Ferment in the Ventricle vitiate the Digestion, in stead of good and laudable *Chyle*, we often find the product to be peccant, either in acidity, or acrimony, or some other quality. If it be Acrimony, when it comes into the Bloud it produceth many hot Diseases, and often Cancers: of which more hereafter. If a meer crude Acidity, then the body is liable to a *Scirrhus*: but that *Scirrhus*, according to the various mixtures it may meet with of Bloud that went before, may be so compounded as to make those several Species which we call *Scirrhus phlegmonoïdes*, *erysipelatodes*, *œdematodes*, &c. Nay, though the whole Bloud may be troubled with one uniform Distemper, which may dispose it to the raising of a *Phlegmon*, *Erysipelas*, *Oedema*, &c. yet the applications of Medicines to a Part so affected may be such as, exhaling too suddenly the thinner Juices, may make the cruder portion that remains, in stead of ripening into a due Digestion, harden into a *Scirrhus*: or else by Medicines that cool too much the whole Mass may be kept in its crudity, and so fixed in the Part as to become hard.

Signs. The exquisite or true *Scirrhus* hath no sense; the imperfect *Scirrhus* hath some sense, if it be pressed upon. The Tumour is hard, immoveable, and of a dark red colour; if *Pituita* be mixed with it, then it is of a livid colour. If a *Scirrhus* be the original Disease of the Part, and not the effect of some other that hath been ill handled, it begins usually small like a Vetch or Pea, and by degrees increaseth, without shifting or changing of place. If it be the effect of some other Tumour that terminated in it, as a *Phlegmon*, &c. then the Accidents proper to that Tumour did suddenly change into those of a *Scirrhus*: of which you may see more in their proper place.

Progno-stick. The true or exquisite *Scirrhus*, being altogether without sense, admits of no Cure. The reason is, because the induration of the Part is so great, that it will not open to receive the free afflux of Bloud into it, but keeps its own hardness in despite of all Applications, and thereby the use of Medicaments is rendered ineffectual.

The imperfect *Scirrhus*, which hath some sense, is not incurable, but yields by Resolution; though very often it terminates in a Cancer.

The *Scirrhus* which ariseth from *Pituita*, without change of colour in the Skin, if it be very big and hard, and have hair grown upon it, is neither curable, nor yet doth terminate in a Cancer.

Cure. In the *Cure* of the *Scirrhus* three Intentions are required. The first is, in the regulation of Diet and manner of living: the second is, in the preparing and evacuating of the antecedent or peccant Humour: and the third is, in the application of external Medicaments.

In order to the first, the Air ought to be clear, and temperately hot and moist. Their Aliment such as may breed good Bloud; as new-laid Eggs, Chickens, Pullets, Mutton, Veal, Lamb, Kid: and these boiled with Spinage, Borrage, Endive, Succory, Lettice, Sorrel, *&c.* are better than roasted. Their Bread ought to be of good Wheat and well baked; their Drink a well-boiled small Ale, or small White-wine, *Rhenish*, &c. Their Exercise moderate, and also their Sleep: their Mind chearful, free from care: and the Body soluble, by Clysters or otherwise.

The second Intention is, the evacuation of the Humour which aboundeth in the Body: whether, to use the vulgar phrase, it be *Pituita* or Melancholy that caused the *Scirrhus*; or that it proceeded from Obstructions of the *Menstrua*, or Suppression of the Hæmorrhoids. If from any of these Causes Bloud abounds and be feculent, Phlebotomy is allowed, a Clyster preceding:

but if Bloud do not abound, forbear Bleeding, and proceed in preparing and evacuating the Humours.

The Preparatives thereto, according to the Ancients, were with *ſyr. de ſucco borrag. bugloſſ. fumariæ, lupul. de duabus radicibus, de pomis, Byzantinus*, &c. in the diſtilled water of the ſame Plants, or in Whey. But our Patients would think that time loſt: therefore, in ſtead of thoſe Digeſtives, we purge with Minoratives; viz. *decoct. ſenæ Gereonis, decoct. epithymi*, alſo Decoctions of *caſſia, tamarind.* &c. *cum ſyrupis de pomis purg.* &c. *elect. diacathol. diaprun. ſolut. diacaſſiæ*; and alſo *pil. de lapide lazuli, de agarico, aggregativ.* &c. Theſe tough Humours require frequent Purging, but not by ſtrong Catharticks: *confect. hamech* and *elect. diaphœnic.* are of the ſtrongeſt ſort. If Phlegm abound, proceed as hath been propoſed in *Oedema*, and forbear Bleeding.

The *Plethora* evacuated, you may endeavour Revulſion to the contrary Parts by Friction, Cupping, Fontanels, *&c.* In Obſtructions of the Hæmorrhoids Leeches may be applied; and in Suppreſſion of the *Menſtrua* a Vein may be opened in the Arm or Leg.

The third Intenſion is performed in treating the Tumour it ſelf: in which theſe Directions are to be followed. Firſt, that you do not uſe Repellents; for cold and tough Humours, of which theſe Swellings are created, are not capable of returning back as hot Humours, but do increaſe the more thereby. In the next place, you ought to be cautious in the uſe of Emollients alone; for thereby they are frequently exaſperated, and terminate in Cancers. You ought alſo to avoid the uſe of the ſtronger Diſcutients, leſt thereby you reſolve the ſerous thin Humours, and convert the groſſer part into a more ſolid ſubſtance. Therefore you are to conſider well the Habit of the Body, and whether the *Scirrhus* be recent or old, and what the Parts are that be affected, and proportion your Medicaments accordingly.

As to the Habit of the Body: young people, and ſuch as live effeminately, require to be treated with milder Reſolvents than thoſe who live a labouring life. So alſo a *Scirrhus* in its recency, whilſt it is in its augment, requireth milder Applications than the confirmed or inveterate one. And thoſe *Scirrhi* ariſing in the Fleſhy parts will more eaſily reſolve than thoſe on the Ligaments and Tendons.

The milder Reſolvents are *butyrum rec. adeps gallinac. ol. amygdal. dulc. lilior. adeps anſer. anatis, ſevum vitulin. hircinum, vaccinum, axung. porcin. vet. rad. althææ, lilior.* &c. The ſtronger are *radices cucumeris agreſt. bryoniæ, ſigill. Solomonis, ireos, pix navalis, liquida, terebinth. gum. galban. ammoniac. bdellium, opopanax*, &c. *Acetum* by virtue of its penetrative quality is properly mixed with other Medicaments in the reſolving groſs Humours.

Some Writers do not approve of Fomentations: but I have always found them neceſſary to diſpoſe the Tumour to Reſolution, and have ever begun my Applications with them, and do propoſe them to you. ℞ *rad. althææ, lilior. an.* ℥ iv. *rad. cucumeris agreſt.* ℥ ij. *ſummitat. cicutæ*, M. ij. *ſummitat. majoran.* M. j. *flor. meliloti, ſambuci, an.* P. j. *ſem. lini, fœnugræci, althææ, an.* ℥ j. *coquantur in ſ. q. aq. font. colaturæ adde aceti modicum.*

In ſoft Bodies, where the *Scirrhus* is recent, ℞ *rad. althææ* ℔ ß. *rad. lilior.* ℥ iij. *ſem. lini & fœnug. an.* ℥ j. *coquantur in brod. ex capite & pedibus vervecinis, deinde piſtentur, & trajiciantur per ſetaceum, addendo olei chamæmel. lilior. an.* ℥ ij. *æſypi* ℥ j ß. *Empl. diachyl. ſimpl. cum oleo lilior. ſolut.* ℥ iij. *ceræ alb. q. ſ. fiat Ceratum. Ceratum hyſſopi* is alſo proper to reſolve theſe Tumours.

In dry Bodies, where the *Scirrhus* is more confirmed and fixed amongſt the Ligaments and Tendons, the Fume of *acetum*, yea *ſp. vini* ſprinkled upon a hot Stone, are of ſpecial vertue in reſolving thoſe Tumours: afterwards you muſt

chafe

chafe the Part, and apply this or ſuch like. ℞ *gum. galban. ammoniac. bdellii in aceto diſſolut. ſtyracis liquidæ, an.* ℥ j. *diachyl. magn.* ℥ ij. *ol. lilior. axungiæ anſeris, an.* ℥ j. *cerat. æſypat.* ℥ ij. *liqueſcant omnia ſimul, & cum cera alba fiat Ceratum molle.* If by the uſe of theſe Medicaments it tend to Suppuration, treat it accordingly: but beware that you be not deceived, and the Suppuration prove falſe, and terminate in a Cancer.

A Perſon of Honour near 40 years of age, of a full Body, had been long ſubject to œdematous Swellings in both her Legs from the Knees downwards: for the remedying of which many Applications had been made abroad during the time ſhe was in *France*; but, by reaſon of her conſtant attendance there, they continued ſwelling, & in progreſs of time the Matter indurated and became Scirrhous, not only along her Shins, but the muſculous Fleſh on the Calves of her Legs and Ancles. The Cure was difficult; but ſhe promiſing to keep her Chamber, I undertook it. She conſulted Sir *Alex. Fraſ.* who prepared her body by Purging, *&c.* after which I began my work with the Fomentation ſet down in the method of Cure, her Servants bathing her Legs with a Sponge morning and evening; after which they were embrocated *cum oleo ex ped. bovinis & ol. lumbric.* Then I applied a Cerote on them of *unguent. dialthææ* and Wax, and rowled them moderately on to retain the Dreſſings: after which ſhe reſted her ſelf upon a Bed or Pallet daily. Whilſt this Perſon was under Cure, there happened a private Diſſection of a ſound Body at our Hall, whence I collected a good quantity of Fat, which I clarified, and, after the fomenting of her Legs, I embrocated them with it twice a day; to which I imputed very much the Recovery; for from that time the hardneſs viſibly reſolved, and in a Month's ſpace they were reſtored. During this method of Dreſſing ſhe was frequently purged, and a Fontanel made in each Leg. Suſpecting her Legs might ſwell upon her firſt going abroad, I cauſed a pair of laced Stockings to be put on, which ſhe did wear ſome few days: but obſerving they did not ſwell, ſhe not only left them off, but healed up the Fontanels. 1. Obſervat.

A Gentleman of about fifty years of age by a Fall brake his lower Jaw, the Cure whereof you may ſee in the Treatiſe of *Fractures*. About half a year after the ſame Patient complained of a hard Tumour fixed under that Ear and *Maxilla*, of a dark red colour, not ſo much painful, as uneaſie from the hard binding of the Parts together. It was an imperfect *Scirrhus*, and not unlike to end in a Cancer. Sir *Charles Scarburgh*, Phyſician to his Royal Highneſs the Duke of *York*, and one of His Majeſtie's Phyſicians, was conſulted, and by his preſcription the Patient was let bloud, and ſeveral times purged. I fomented the Tumour with the *Fotus* above mentioned, and embrocated it with *ol. lilior. ſambuci*, and *unguent. dialthææ*, applying *Empl. diachyl. cum gummi*, and afterwards a Cataplaſm *ex fol. cicutæ, rad. lilior. ſem. lini, fœnugræci*, &c. During theſe Applications little hard Tubercles roſe in the body of the Tumour, (as I have ſometime ſeen riſe about the Lips of inveterate cancerated Ulcers,) and after ſome days brake and gleeted, but would not digeſt. In the preſence of the Phyſician I cut into them, filled them with Præcipitate, applied *unguentum baſilicon* on them, and continued the uſe of Fomentations, *&c.* The Præcipitate not digeſting them, I rubbed into them with a Cauſtick-ſtone, divided the Eſcars, and filled them with Præcipitate, from that time haſtning ſeparation of the Sloughs. Then by the Vitriol-ſtone and Præcipitate I deterged them. As theſe digeſted, the hardneſs reſolved, and I cured them with *unguent. tutiæ*. The Patient being cured, we ſent for Mr. *Goſling*, to inform himſelf whether any carious Tooth or Stump affected that Jaw. He pulled out one; but whether that was the cauſe I much doubt. 2. Obſervat.

One

3. Obſervat. One of about fifty years of age, of a full Body, came to me with a hard Tumour of about four inches in length lying on the outſide of his right Thigh, cloſe to the *Muſculus vaſtus externus*, of a livid colour mixed with a dark red. It was occaſioned by a Fall upon a Threſhold of a door, which bruiſed the Part, and I ſuppoſe made a large extravaſation, which, for want of timely diſcuſſing, dried and hardened. The Tumour was ſenſible, but not otherwiſe painful than as it numm'd that ſide of the Leg, and ſo cauſed a Lameneſs. I began with Venæſection, and purged him frequently with *decoct. epithymi*, &c. during which I fomented the Tumour with the *Fotus* propoſed in the method of Cure, and beat and pulped the *fæces* of it, and with *farin. lentium & hordei cum axung. anſeris & ol. lilior.* made up a Cataplaſm and applied it. I embrocated the benumm'd Parts with *ol. lumbricor.* and made him a Fontanel on that ſide of the Leg. After I had continued theſe Applications ſome days, I added more *Cicuta* to the Cataplaſm, and boiled it in Wine and Water. By the frequent application of the *Cicuta* the Skin was fretted; in which caſe I omitted the uſe of it, and applied the milder reſolvent Emplaſter ſet down in the method of Cure, and embrocated the Tumour with *axung. humana.* By this method I reſolved the Tumour, and diſmiſſed him cured.

I could give you ſome other Inſtances of theſe imperfect *Scirrhi*; but they not differing in their Cure, I ſhall forbear, and conclude this Chapter with one Inſtance of a *Scirrhus* which may ſerve to ſhew what the Diſeaſe is when heightned by acrimony or evil quality.

4. Obſervat. A Gentlewoman aged forty eight years, of a full Body, having been long diſeaſed by immoderate fluxes of the *Menſtrua*, and ſubject to Cough with Shortneſs of breath, *&c.* at length recovered her health by the preſcriptions of Doctor *Denton*, and enjoyed it the ſpace of a year; but was then ſeized with a ſtreightneſs and pain in her right Breaſt, which increaſing much with Inflammation, ſhe came again to her Phyſician, who ſent for me. At the firſt ſight it ſeemed to me a confirmed Cancer fixed to the Ribs: but upon more mature deliberation and handling of it, I found the Diſeaſe was in the Skin, and that the Glands and muſculous fleſh underneath it were not hard, or otherwiſe affected than as they were bound in by the intenſe hardneſs of the Skin, which kept them immovable. From that uneaſineſs an *Eryſipelas* was raiſed, which overſpred the Skin of the Breaſt and Parts about with great heat. We ſuppoſed the hardneſs proceeded from a concretion of the nutritious Juices: but how to relieve her was the difficulty. We applied over the Parts affected *cerat. Galeni* to repreſs the heat, and ſupplied her with Medicaments to dreſs her ſelf, that ſhe might, according to her deſire, retire to her houſe in the Country, where ſhe was let bloud, and purged with *manna* and *cremor tartar.* diſſolved in Whey; and her Houſe being near *Epſom*, ſhe was afterwards purged with thoſe Waters. But, after all, growing more indiſpoſed, ſhe returned to *London:* at which time I ſaw her Breaſt inflamed and excoriated, alſo ſeveral hard Tubercles riſen in the Skin which gleeted much. The *Scirrhus* was alſo ſpred up that ſide of the Neck by the *Muſcul. maſtoïdes* to the *Os humeri* and *Scapula*, and ſo under that *Axilla*, and down that ſide. We dreſſed ſome of the Excoriations with *unguent. tutiæ Vigonis*, and others with Pledgits dipt in this following Lotion; ℞ *aq. ſpermat. ranar.* ℔ j. *ſem. cydon.* ʒ ij. *ſem. plantag.* ʒ j. *infund. calide per quatuor horas: colaturæ adde troch. alb. Rhaſ. pulv.* ʒ j. *ſacchar. Saturni* ϑ ß. And over all we applied ſome of this following Cerote: ℞ *mucilag. ſem. cydon. pſyllii extract. cum aqua ſolani, an.* ʒ iv. *unguenti nutriti* ʒ iij. *unguent. popul.* ʒ vj. *ceræ albæ q. ſ. fiat Ceratum.* Thus the Inflammation was remitted, and the Excoriations healed in ſome places, and checked in others. Many internal Remedies were alſo preſcribed, Emulſions, Cordials,

Cordials, *&c.* according to the Accidents which happened. During the while I was in the Country other Chirurgeons were consulted, but without success; the *Scirrhus*, still spreading, over-ran the other Breast and side of the Neck, and in few weeks rendered her Neck stiff and immovable: and, by reason of the Compression which was made in the *Axilla* and about the Shoulder, there was a restagnation of the Humours, and the Arm swelled to the Fingers ends. We fomented the Arm with a *decoct. fol. & rad. althææ, fol. violar. plantag. solani, salicis, lenticulæ palustris, flor. cham. meliloti, sem. lini, fænugr.* and endeavoured by Embrocations and Cerots, Emollients and Resolvents, to succour these Parts: but all this while she was either afflicted with Colicks, or *Diarrhœa*, or Vomiting. We endeavoured to carry off the Matter by *Calomel.* inwardly, and by Mercurial Unguents outwardly, and would have salivated her, if she would have permitted. The weather growing hot, and her Lodgings being too streight, she removed again to her house in the Country, where she was visited by us. I saw the *Scirrhus* affecting both sides of her Neck, her Shoulders, Arms, Breasts and Sides, and beginning to invade the Skin of her Loins and Hips; yet she was not at that time sick or pained, but eat her Dinner well. She at length grew weary of Medicine, and with patience endured the remaining Accidents of her Disease till it killed her. She was seized with this *Scirrhus* in *May*, and died in *August* following.

Chap. XX.

Of Warts and Corns.

HAving run through the Discourse of *Scirrhus*, I shall make bold to add to it something concerning *Warts* and *Corns*, as being more reducible to that Head than to any other that I know: they being for the most part indurated Tumours; and though sometimes we find them soft, yet that is upon some admixture of an extraneous Humour that makes the Tumour compound.

Warts and *Corns* are both of them cutaneous Tumours, but do differ from each other by this most essential Difference: A *Wart* beginneth in the *Cutis*, and seemeth to be either an efflorescence of the *Serum* of the Bloud, which, hardning in the surface of the Skin, maketh a dry Tumour; or else some small luxuriancy of the little Arteries of the *Cutis*, which do thrust out themselves, making a petty *Sarcoma* which we call a *soft Wart*. According to the variety of the Tumour, it is sometimes whole with a smooth surface, sometimes chapp'd and uneven. According to the manner of their production, sometimes they arise by a general exsudation out of the *Cutis*, with a broad *basis*, and are called *Verrucæ sessiles*; sometimes a few Capillaries putting out together do, after they have grown to a small length, inlarge themselves into a greater compass, and make the pensile Tumour we call *Acrochordon*.

Cause of Warts.

Differences.

The *Corn*, on the other side, beginneth in the *Cuticula* with its *basis* outward, owing its origin to an outward Compression, and thence derives it self inward into the Skin, nay, often through it to the Membranes, Tendons, & Cartilages, to which it frequently unites it self, to the no small disturbance of the Patient. It groweth in any part that is liable to great Pressure; the Toes and Feet, the Lips of Trumpetters, the Ears of Ladies, *&c.* The hardest part of the Corn is

Cause of Corns.

usually

uſually in the middle,thruſting it ſelf in like a Nail; whence it hath its *Latine* appellation of *Clavus*. That hard part doth often turn black,making a ſpeck in the middle, which in ſome Countries gives it the name of a *Bird's eye*. The outſides are ſofter, not ſo horny as the former, but ſtill ſcirrhous, and do either prohibit acceſs into the hole whence the Corn grew, if it have been cut out; or elſe ſuffer themſelves to be crowded into the place that was voided by exciſion,there hardning into a new Corn of the like ſolidity with the former.

Differences. But it is not always that Corns are hard; they often are ſoft between the Toes,where the Compreſſion is not great,and ſometimes have Inflammation joined with them: which variety is ordinarily obſerved,and eaſily reduced to the common heads.

Signs of both. There need no *Signs* be given of *Warts*, they being ſo apparent. And for *Corns*, whether they be hard or ſoft, the pain will diſcover them: yet in the ſoft Corns the Skin is for the moſt part whiter than the reſt.

Prognoſtick. *Warts* do often fall away of themſelves; whereas *Corns* are ſcarce ever ſo cured that they return not again.

Cure of Warts. The Medicaments commended in the Cure of *Warts* are many. Thoſe which are moſt eaſie to be had in the Country are,the green Rinds of Willows beaten, the juice of Marigolds, Celandine, all the Spurges, a Garden-ſnail ſprinkled with Salt. If you rub them with any of theſe, they will fall off. *Ol. vitrioli* or *ol. ſulphuris* will certainly deſtroy them. I have ſeen ſome burn them out by running a hot Needle into the roots of them. There are other ways,as by rubbing them with raw Beef,and burying it. But when any great one falls into my hands, I make a ſpeedier riddance of it by Ligature or Cauſtick. Where it is capable of being tied, I make a Ligature: in others, where it is not, the Cauſtick-ſtone alone will do it.

Cure of Corns. The *Cure* of *Corns* is in paring them off, and applying red ſoft Wax: or, ℞ *picis navalis* ℥ j. *Empl. diachyl. magn.* ʒ iij. *gum. galban. diſſolut. in aceto* ℥ ß. *ſalis ammoniaci* ℈ j. *Miſce*; or, ℞ *aluminis, vitrioli Ungarici, auripigment. ana part. æqual. pulveriz. & miſceantur cum aceto.* All which are proper as well in the ſoft as in the hard Corns.

1. Obſervat. of Warts. A Young Lady, having been long vexed with an unſeemly over grown Wart upon one of her Fore-fingers,deſired my help. I rubbed the chapp'd head of it with a Cauſtick-ſtone till it was ſoft and black, then ſcraped it off, and rubbed the remaining root with ſome of the ſame till I judged it was eradicated, then waſhed out the Salts, and dreſſed it *cum unguent. baſilic.* with a few drops of *ol. terebinth.* which made ſeparation of the Eſcar, and cured it.

2. Obſervat. In another young perſon,where they were ſmall in the *baſis*, I tied ſome of them cloſe by the roots with a Silk, others I ſnipt off with a pair of Sciſſors, not regarding the dropping of the bloud upon the neighbouring Parts,which is thought to infect them, and beget others. Then I rubbed the roots of them all with a Cauſtick-ſtone, and digeſted the Sloughs out as above ſaid, and they cicatrized of themſelves the while.

Caution. Yet you ought to be cautious how you meddle with thoſe growing upon the Knuckles: for Warts there,being for the moſt part near the Tendons,cannot well be extirpated without offending them,and ſo are conſequently ſubject to Fluxion, and corrupt the Cartilages or Bone.

3. Obſervat. This was the caſe of a Perſon of Quality aged about fifty years,of a plethorick Body,who had a Wart upon the firſt Joint of one of her Fore-fingers. It was imprudently undertaken by ſome pretender to Chirurgery,and treated as ill; ſo that after many Months endeavours he was diſmiſſed,and a more knowing Chirurgeon entertained,who found much difficulty in the Cure,yet made a

ſhift

ſhift to cicatrize it: but it ſwelled again, and diſcharged part of its Matter by the ſide of that Nail. Upon ſight whereof I was conſulted, and ſaw a thin *Ichor* weeping through the old *Cicatrix* at an Opening not bigger than a ſmall Pin-hole. The Lady importuning me to undertake the Cure, I ſprinkled the Orifice with Præcipitate, whereby I cruſted in the Matter to thin the Skin, which the next day I opened, and by ſearch of a Probe felt the Cartilages rotted. I informed the Patient of the neceſſity of making an Inciſion proportionably large in order to the Exfoliation, and withal repreſented the difficulty; and offered to her conſideration the more certain and ſpeedy way by cutting off that Joint. She with little demur conſented to it. All things being immediately prepared, I chopt off that Joint, dreſſed it up with *pulver. Galeni*, and afterwards digeſted it, and cured it, as hath been ſhewed in ſuch like Extirpations.

A Citizen came to me complaining of a pain between the two little Toes of one of his Feet, which he had of a long time ſuppoſed to ariſe from a Corn on the outſide of his little Toe, and pared that often, cauſing his Shoes to be made wider, yet without any manner of eaſe: but of late he had diſcovered the pain to be on the inſide of the little Toe. I looked on it, and, ſeeing the Skin whiter there than on the other parts, concluded it a ſoft Corn, and ſent for one to cut it out. He pared out that white Skin, and filled up the *Fovea* with ſoft red Wax. From that inſtant he wore the ſtreighteſt Shoes with much eaſe. 1. Obſervat. of a ſoft Corn.

Many ſuch like Corns I have been conſulted in making the diſcovery, and by my advice they have after the aforeſaid manner relieved themſelves.

A Perſon of quality complained to me of a pain in the Joint of her great Toe and Sole of that Foot: underneath the Toes ſhe ſaid her pain was ſo much, that ſhe could neither go in the day upon it, nor ſleep in the night. I looked upon them, and, ſuppoſing they might be ſoft Corns, ſent for a Corn-cutter. He cut away the thick Skin to the quick, as we thought; but ſhe continued in much pain, and, ſending for me the next morning, told me ſhe had not been in bed that night by reaſon of her exceeding pain. I ſuſpected they had been cut too cloſe, and were feſtering; but in looking upon them I ſaw no heat or diſturbance; yet upon preſſing my fingers on them ſhe complained much. I, concluding there was ſome fault under the Skin, reſolved to find it out: to which purpoſe I rubbed one of theſe places with a Cauſtick-ſtone, and ſcraped away the Skin as it ſoftned, and, penetrating more deep, gave vent to an extravaſated Bloud. I ſerved the reſt ſo, and found the like Bloud in every one of them: the quantity did not exceed the kernel of a Cherry-ſtone. I dreſſed them all with *unguent. baſilicon* and an *Empl. diapalm.* over them, and thereby they cicatrized in twice or thrice dreſſing: but from the firſt dreſſing her pain ceaſed, and ſhe continueth ſince without complaint. 2. Obſervat.

In the Cure of the hard Corns of the Feet or Toes I do not buſie my ſelf, if ſuch Emplaſters as have been propoſed fail, they may ſend for the Corn-cutter. But if through pain a Fluxion be occaſioned, and the Part apoſtemate, it may then be worth the conſulting a Chirurgeon; for generally they penetrate to the *Perioſteum*: and if the Apoſtemation doth not foul the Bone immediately, yet the Lips of the Ulcer grow callous, and do not eaſily unite.

An elderly Gentlewoman was much afflicted with Corns, eſpecially one on one of her little Toes, which apoſtemated, and diſcharged its Matter forth at a ſmall Pin-hole. The ſpeedy Cure was, by eating that Skin off with a Cauſtick, or cutting it away, that the Matter being at once let out it might heal. But ſhe not admitting of either, I was put upon the neceſſity of paring away the Calloſity, & dreſſing it with Lenients. Thus the Skin was kept ſupple, and 1. Obſervat. of Apoſtemations from a Corn.

the Matter discharging freely the while, it healed underneath, and the Callosity pilled off: and from that time the Toe hath continued free from Corns.

2. Observat. A young Lady about fifteen years of age had an Apostemation on the outside of one of her Toes. It was occasioned by the hard pressure of a Corn upon the Joint of it, and had continued some months discharging its Matter through the middle of the Corn, in spite of the endeavours that had been tried by Corn-cutters and others. Upon sight of it, the Skin which covered the Ulcer appeared (to my judgment) callous within, and not capable of uniting with the parts underneath. Upon which consideration I stopt the Orifice with Lint, and, rubbing the Skin with a Caustick-stone, removed that false cover; then dressed it with *unguent. basilicon* warm; by which it was digested, and afterwards cicatrized.

3. Observat. Another having an Apostemation on the outside of her little Toe by reason of its hard Pressure, I opened it by Incision, and discharged the Matter; and afterwards perceiving the Matter retained under the callous loose Skin, I snipt it off with my Scissors; whereby she was freed of her Corn, and the Ulcer was soon cured by the abovesaid Unguent.

4. Observat. A young Gentlewoman came to *London* with an Ulcer in one of her Toes, that next to the little one. It was on the middle Joint, occasioned by the pressure of a Corn. Doctor *Walter Needham* commended her to my hands. We dilated the Ulcer, and discovered the Bone carious. We adviled her to keep her Chamber in order to the Exfoliation of it, and withal put her in mind that it was the work of nature, and required time for the perfecting of it. Upon which she demanded how long the Wound might be curing if the Toe were cut off: and being told fourteen days; she replied, Cut it off. We did so, and cured it accordingly by the method usual in such Extirpations.

Chap. XXI.

Of a Cancer.

Description. A *Cancer* is the name of a Tumour arising (as it is thought) from an adust or atrabilious Humour. It is round, unequally hard, and (if not inflamed) of a livid or brown colour, with exquisite pricking pain: the Veins appear turgid in the Skin upon the surface of the Tumour.

Cause. The *Cause* of a Cancer is usually said to be adustion of Humours, which upon an over-concoction or rather broiling grow retorrid and sharp.

I cannot imagine what heat these Authors suppose to be in the Body which is capable of making such an Adustion as is here spoken of. I rather impute the corrosive venome that attends this Tumour to the materials of which it is made, than to any extraordinary heat; and that because we see the highest Fever not attended with a Cancer, & on the contrary a Cancer not often attended with any extremity of heat: so that it cannot be Adustion that is the cause of the Malady. But I rather think the matter of the Humour to be in fault, which by some error in Concoction became sharp and corrosive, (it may be arsenical, as appears by the Sloughs we sometimes find made in a night.) This Humour, being of it self sharp and corrosive, is apt to convert whatever comes to it of Bloud into the same acrimony with it self: which is easie to be done by mixing such an acrimonious Ferment with a Liquor that abounds with acid Salts, as the

the Bloud of such men usually doth. Being such, it doth increase apace while the Skin is yet whole; but much more when, upon breach of Skin, the accession of air adds to the vigour of the Ferment, upon which it grows fierce, and thrusts it self out into *Fungus* and Tubercles, *&c.*

The remote Cause of this Tumour is, either a fault in the original Constitution of the Body; or an acquired one, as by Bruise, Tumours, ill handling, *&c.* Or it may be an error in Diet, *viz.* a great acrimony in the meats and drinks meeting with a fault in the first Concoction, which, not being afterwards corrected in the Guts, suffers this acrimonious matter to ascend into the Bloud; where if it find vent in the *Menstrua* in Women, or by the Hæmorrhoids, or by *Hæmorrhagia*, or Urine, or the like, the mischief may be prevented: but if upon any defect in those the Humours divert to some other peculiar Part, then the foundation of this Disease is laid, whether it be in the Breasts, or other glandulous and spongy Parts, or indeed any other Part of the Body.

The *Differences* of *Cancers* are many; some whereof are with Ulceration, others not. The Cancer not ulcerated is of two sorts. The one is visible and evident to the sight in the exteriour Parts of the Body, and beareth the name of a *Cancerous Tumour*: the other is within the Body, and is called a *Latent* or *Occult Cancer*, and possesses the *Uterus*, *Anus*, Palate, *&c.* Others call all those Cancers *occult* which are not ulcerated, amongst which may be reckoned those which are felt in the Glands of the Breasts, *&c.* Of these some are loose and moveable, and sometimes so hard that they have knocked against one another like Pebbles; if it be not more fit to call them *Scirrhi*: others again are hard and fixed to the Bones. Some lie superficially under the Skin; whereas others are deeper in the Flesh. Other Differences may be taken from the Humour to which they owe their Original. If the Matter be not very corrosive, their growth is slow, and they are not very painful. These are called the milder sort, of which I have had many under my care; and some of those affecting the Breast I have palliated a long time with easie Remedies. If any man will, in stead of *mild* or *occult* Cancers, call them *scirrhous* Cancers, I shall not gainsay him. Difference.

Such was the case of a Lady that laboured many years of an ulcerated Cancer. It had eat deep into her left Breast, and was fixed to the Ribs, but not with much pain. In progress of time the Lips inverted, and united as it were, and lay covered with a crusty Scab: the Humour in the mean while spent it self upon the Nerves, and caused a Species of a *Paralysis* in some parts of her Body, and the Gout in others. She lived long, and in her latter age tolerably healthful. 1. Observat. of Varieties of Cancers.

Another person of great age hath laboured long of such another Cancer in her right Breast. It lieth large and deep about the middle of it: the whole Breast is hard and immovable. She enjoys a good health, and is like to live long for any thing of disturbance she at present suffereth by it. 2. Observat.

It is not long since that Doctor *Walter Needham* and my self were desired to look upon a Gentlewoman's Breast in the City. We found a Tumour hard and fixed, which had been some years ulcerated, and was judged a Cancer by those who had before seen it; but it was not painful. We judged it a *scirrhous Cancer*, as indeed all the forementioned are, or at least seem to partake much of a *Scirrhus*: yet by ill handling or increase of Acrimony they frequently terminate in *raging Cancers*, and torment the Patient with exquisite darting pains. Some Instances whereof I shall set down, to make the young Chirurgeon more cautious in undertaking the Cure of them. 3. Observat.

An old Gentlewoman came to me with a Swelling behind the right Ear, supposing it the *King's Evil*. The Tumour was of the bigness of a Pigeon's 4. Observat.

egg, but lay more flat: it was hard and fixed, of a dark red colour, with a pricking pain. I assured her Friends that the Swelling was cancerous, and gave them caution in applying Suppuratives. But there wanted not one who undertook the Cure by breaking of it; upon which it became more painful. I was sent for, and saw it ulcerated deep, with stinking Sloughs, and thick Lips standing up. It was spred under her Ear, and so horribly painful that she seemed distracted therewith.

5. Observat. So a Girl of ten years old had a hard round Tumour in her left Cheek; by the use of Discutients it heated and became painful, that Eye inflamed, and the Temporal Muscle swelled: it reached downward, and afflicted that Jaw and Tonsil, rotting the Bones underneath, without breaking the Skin. She lost her Eye, and died soon after Lethargick.

6. Observat. A Lady coming to Town with a Swelling in her left Breast consulted some of our Profession, and at last me. She said she had some years since Kernels in her Breast, which were judged the *King's Evil*; upon consideration of which she was presented to His *MAJESTY*, and touched. In progress of time they swelled, and, her Breast being extremely painful, she desired my Judgment of it. The Swelling was large and round, and greatly inflamed, under which it was soft, and seemed to have Matter in it. The Parts more distant were hard, and several Tubercles lying under the Skin made it unequal: yet the Breast was not fixed. She urged me instantly to deliver my thoughts of it: which to decline, I turned from her, and told her Friend it was a Cancer, and that I saw no hopes to save her life but by cutting it off. He wished me to consider how I delivered such Judgment of it, two Chirurgeons having lately assured her the contrary, they taking it for a *Phlegmon*. But I, not being used to guide my Judgment by what others delivered, confirmed to him what I had before said by a sad prediction, which befel her within few weeks after. And indeed there was no way then to deal with it but by cutting off her Breast.

7. Observat. In another, who consulted me about a pain in her Breast, I felt one of the Glands swelled. I advised her to refrain the handling it, and to avoid the lacing her self too streight. It lay some years quiet; but then the death of her Husband happening, and one affliction following another, and the *Menstrua* stopping, the Humours fermented in this Gland, and afterwards the Breast swelled, and seemed to apostemate. Some were so wise as to assure her it was a simple Apostemation, and required Digestives: whose advice she was perswaded to follow, till she became extreamly pained, and then she sent for me. It was without Inflammation, but swelled very big, and seemed to be full of Matter; yet was not without hard Tubercles and other Symptoms to shew it would terminate in a Cancer whensoever it should break. Therefore I refused to open it, but advised the best I could to give her ease, and promised to come to her, if after it brake she would send to me. Some months after she sent for me, and shewed me a great quantity of curdled Matter newly burst forth. The Breast was lank, but very hard Glands lay within, and in the circumference of the Tumour there were some Tubercles that required to be eradicated. To which purpose I designed to have slit open the Abscess, and to have pulled away the cancerated Glands: but she would not permit me so much as to inlarge the Orifice: upon which consideration I left her. She sent for another, who chose rather to treat her the way she desired, than to leave her to other hands. She died within half a year after.

8. Observat. Some years since a Clergy-man dwelling in the City brought his Wife to me with a painful hard Swelling in one of the Glands of her left Breast. I advised them to forbear the use of all Cataplasms or Emplasters that might heat her Breast, and to dress it with *valentia strammonii*: but she was otherwise perswa-

perſwaded, and thereby increaſed her miſery. About half a year after ſhe came to me again with a ſtinking ſordid Ulcer, with Lips turned out, and the Breaſt fixed to the Ribs, with a hard unequal Swelling reaching to that Clavicle and ſide of the Neck, apoſtemated in ſome parts, and ulcerated in others. From the Pectoral Muſcle it crept up to the Shoulder, and affected the *Axilla* underneath; and by the Compreſſion of the Veſſels the upper part of the Arm ſwelled, and became ſcirrhous. From the Elbow downwards it was œdematous to the Fingers ends. She paſſed under the endeavours of many eminent Phyſicians and Chirurgeons of the City, but died miſerably.

There is alſo a ſort of bleeding Cancers, which become ſuch either from an eruption of ſome Veſſel, which makes a vent often at the Nipple or ſome other Pin-hole, the Breaſt remaining whole; or elſe from the ſpreading of infinite capillary Veſſels in a *Fungus*, which in ulcerated Cancers is not unfrequent. Theſe do very much ſpend the ſtrength of the Patient, ſo that they ſoon die exhauſted and tabid.

Cancers may alſo be ſaid to differ as they affect ſeveral Parts of the Body, as the Head, Face, Eyes, Noſe, the Palate, Tonſils, Throat, Tongue, Jaws, or Lips: in ſome of which they take their Original from ſmall hard Tubercles, or little Excreſcences, and in progreſs of time penetrate deep into them, or ſpread and invade the neighbouring Parts with a *Fungus* or looſe Fleſh, rotting the Bones under them.

Cancers affecting the *Uterus* and *Podex* may alſo be diſtinguiſhed as they are in the interiour or exteriour parts; or as they take their beginning from a Swelling, or Excreſcence: in both which caſes and places they are extremely painful, and communicate their malignity both from within outward, and alſo from the external to the internal parts. Thoſe that poſſeſs the body of the *Uterus*, or the upper part of the *Rectum inteſtinum*, are not diſcovered till they have made ſome progreſs; in which caſes there is a bearing down, with ſuppreſſion of Urine.

And this was the caſe of a Country-Gentlewoman who came to *London* laſt Summer with great ſuppreſſion and difficulty of Urine, (ſhe ſuppoſed from the Stone.) Upon ſearch I felt two hard Glands *in Vagina uteri*: theſe preſſed upon the neck of the Bladder, and ſuppreſſed the Urine. The pains from hence were ſo like thoſe of the Stone in the Bladder, that Mr. *Hollier* at firſt would not be diſſwaded from that opinion; but upon ſearch he found it cancerous. She, poor woman, rejoyced that it was not the Stone, and ſoon after returned homewards, but died by the way. 9. Obſervat.

If they be ulcerated, a filthy *Sanies* will diſcover it. If it be in the *Inteſtinum rectum*, the difficulty and pain in going to Stool will be exceeding great. If the *Uterus* be cancerated, there will be Fever, nauſeouſneſs, anxiety of mind. In ſome of thoſe who died ſo diſeaſed I have opened the Body, and found the *Uterus* preternaturally big and hard: in cutting into it, I have ſeen it all rotten. Thoſe in the more exteriour parts, whether it be of the Womb or *Podex*, are ſooner diſcovered, and the Patients are in a greater poſſibility of being eaſed of their pains.

The *Signs* of a Cancer may be taken from what I have already delivered of them. Whether they begin in a Tumour or Excreſcence, their firſt appearance is very ſmall: and according as the Humour is of which they are generated, ſo is their increaſe quick or ſlow, from the ſmalneſs of a Vetch to the bigneſs of a Pompion. If the Matter be very corroſive, the pain is ſharp, (to uſe their own expreſſions) as if they were ſtruck with a dart. And theſe painful Tumours have frequently a *Phlegmon* joyned with them, or are overſpred with an *Eryſipelas*. And while they are thus inflamed, they will be ſoft underneath Signs.

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the Inflammation, ſo may be thought full of Matter; but if you then open them, they will only gleet. If you aſſwage that heat, the ſame place indurates again. Yet I have frequently ſeen a *Phlegmon* ſuppurate in ſome part of the Cancer: and after the cutting off a Cancer I have found an Apoſtemation of well-concocted Matter in the body of it. And ſo it was in that Cancer my Friend Mr. *Nurſe* cut off in the preſence of Doctor *Walter Needham* and ſeveral of us. If pituitous Humours abound in the Body, an œdematous Tumour may be found affecting ſome exteriour part of the cancerous Tumour: in which caſe the Swelling ſomewhat reſembles a Tumour made by Congeſtion. Theſe are they that grow to ſuch a great bulk, and are pale or livid, with a mixture of a brown colour, and have thoſe turgid Veins ſtretching over the Skin: whence Authors have likened them to Crabs, and theſe Veins to their Claws, and from thence impoſed upon them the name of *Cancer*. The many Tubercles lying under the Skin make the Tumour round and unequal: at laſt they break; and from that time, be the Matter much or little, they ulcerate, thruſt out hard painful Lips, diſcharge a ſtinking Gleet, and fix to the Ribs, as if they were nailed to them, and in progreſs are of a horrible aſpect.

Prognoſtick. Of all the Diſeaſes which afflict mankind the *Cancer* is the moſt grievous and rebellious, and is generally incurable, by reaſon of its corroſive and malign venom fermenting in the Humours, which, ſo far as we can yet find, yields neither to Purging, Bleeding, Repellents, Diſcutients, Suppuratives, nor any other Medicine inward or outward.

Thoſe which lie ſuperficially under the Skin may be attempted by the Chirurgeon's hand: or if they riſe from an external cauſe, as Bruiſe, *&c.* though they lie deeper, they may be cut off, or otherwiſe extirpated. But thoſe that ariſe from a corroſive quality in the Humours, though they may be cut off or otherwiſe extirpated, yet the ſucceſs is moſt doubtful. Nor do Cancers in the Mouth or other internal Parts cicatrize well, though they be extirpated by Knife or Fire.

Cure. The *Cure* of a Cancer in general conſiſteth in theſe three Intentions: firſt, in the generation of good Bloud; ſecondly, in correcting and evacuating of the atrabilious Humours in the Body; thirdly, in preventing the growth of the Tumour, and diſpoſing it to Diſcuſſion.

We endeavour to perform the firſt Intention by an exact regulation in Diet and way of living, adviſing to abſtain from ſuch ſalt, ſharp and groſs Meats as may diſpoſe the Bloud to acrimony, and make choice of the contrary, ſuch as are cooling and moiſtning, of eaſie digeſtion and good nouriſhment, as hath been propoſed in the Chapter of a *Scirrhus*.

The ſecond Intention is, in preparing and purging off the acrimonious Humours. If there be *Plethora*, or a ſuppreſſion of the Hæmorrhoids or *Menſes*, a Vein may be opened, and a Clyſter given. The Humours may alſo be evacuated by lenient Purgatives, as *decoct. epithymi, ſennæ Gereonis:* or this; ℞ *flor. trium cordialium* M. j. *ſenæ* ʒiij. *epithymi* ʒij. *infund. in ſero lactis; colaturæ adde ſyr. de pomis purg.* ʒj. *mannæ* ʒvj. *Miſce.* Clarified Whey and what elſe hath been preſcribed in the Chapter of *Scirrhus* are here proper. Traumatick Decoctions of this ſort are alſo uſually preſcribed. ℞ *rad. & fol. caryophyll. chelidon. maj. pimpinellæ, ſenecionis, gentianæ, plantag. an.* M. j. Theſe are to be boiled in two parts Water and one of Wine to the quantity of three pints, and ſweetned with Sugar, to drink thrice a day. Or, ℞ *rad. ſcrofular. maj. tapſi barb. an.* ʒij. *filipend. ceterach. herb. Roberti, agrimon. tormentillæ, ſcabioſæ, linariæ, an.* M. j. *flor. ſambuci, anthos, an.* P. j. *ſem. urticar.* ʒij. *fiat Decoct. colaturæ adde ſyr. de pomis alterant. & de ſucco citr. an. q. ſ.* This following Electuary is alſo reckoned among the Specificks: ℞ *pulver. ranarum, limac. præparat. an* ʒß. *pulv. cancror.*

cancror. fluviatil. ʒj. *ossis de corde cervi* ʒj. *cort. citr. condit.* ʒj. *conf. borrag. bujulæ, an.* ʒij. *syr. de succ. citr. garyophyll. q. s. fiat Electuar. sumatur q. nuc. castaneæ mane & vesperi, superbibend. haust. Decoct. superscript.* Emulsions, distilled Milks and Opiats are of great use to contemperate the acrimony, and alleviate the pains.

The third Intention is, to restrain the growth of the Tumour, and moderately discuss it. Whilst the Humours are evacuating, we apply Repellents and afterward we add Discutients. The Repellents ought to be of the milder sort, lest they render the Humours too gross and unfit for Resolution; as, *Lactuc. portulac. plantag. umbilic. Ven. solanum sempervivum*, Lentils boiled in Vinegar, also Clay tempered with Vinegar.

The Medicaments ready compounded are, *unguent. album, nutritum, populeon, tutiæ, de plumb. usto*, Lead it self. And all the Unguents prescribed ought to be wrought in a leaden Mortar. Lead beaten into thin *laminæ* is usually worn in these cases; so is Gold after the same manner.

The Oyl of Frogs is commended in this case, and is made by baking them with butter in their mouths. Frog-spawn-water is of good use in the Summer, if cloaths be dipt in it and applied: but they ought to be shifted as they dry, and fresh ones applied. The often changing them in the Winter may cause the Patient to take cold, therefore you may apply then this or such like Cerote: ℞ *ranar. virid.* ʒiij. *pulv. cancror. fluviatil. combust.* ʒß. *lithargyri aur.* ʒij. *plumbi usti, tutiæ præparat. an.* ʒij. *ceruſſæ* ʒvj. *succor. solan. plantag. an.* ʒvj. *aceti* ʒij. *olei ranar. & unguent. popul. an.* ʒiij. *sevi vitul.* ʒiv. *ceræ q. s. fiat Ceratum.* Or, ℞ *sem. papaveris albi* ʒj. *sem. hyoscyami* ʒß. *opii* ʒj. *gum Arabic.* ʒß. *pulverizentur, & cum ol. ros. & myrtill. an.* ʒiij. *ceræ q. s. fiat Ceratum.* This is proper in case of pain, in the extremity whereof you may double the quantity of *Opium*; or in such cases you may foment the Tumour with a Decoction of Poppy-heads, flowers of Roses, and tops of Melilot, and apply the following Unguent: ℞ *theriacæ vet.* ʒj. *succ. cancr. fluviatil.* ʒß. *succ. lactucæ & ol. ros. an.* ʒjß. *vitell. ovor. sub cinerib. coct. num.* ij. *camphoræ* ʒß. *agitentur in mortario plumbeo.*

The Discutients are Ceterach, Agrimony, *lens palustris, scabios. stramonium, succ. coriandri, ranar. limac. cancror. fluviat.* Raisins of the Sun stoned and beaten with Rue and Garden-Nightshade into a Pultice are proper to resolve them. Many such like Medicaments are designed to this purpose; Cancers requiring variety of Applications.

If notwithstanding all your endeavours the Tumour increase, and be like to ulcerate, you may do well to forewarn the Patient of the danger: and if it be loose, and in a place where it may be safely extirpated, propose it to them, lest afterwards they desire it when it is too late.

That you may be the more successful in the Operation, I shall offer to your consideration these few Qualifications. First, that the Patient be of a strong Constitution, and of a tolerable good Habit of body, and not in a declining age, when the *Menstrua* are ceased. Secondly, that the Cancer be loose, and the *Axilla* free from painful Glands. It were also to be wished that the Cancer took its Original from some Accident, as a Bruise, *&c.* Thirdly, that the Operation be performed in the Spring or Autumn of the year: lest through the great heat of the Summer the Spirits be resolved; or by reason of the extream cold in the Winter the native Heat should be choaked.

In order to the Operation you ought to have good Rowlers, Compresses, restrictive Powders and Defensatives, as in other Amputations. The use of *Chalcanthum* or other Escharoticks I do not approve: for you cannot apply them so to the mouths of the Arteries but they will corrode the adjacent Parts,

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and cauſe pain,which ought not to be, eſpecially in a Cancer. Beſides, they require a ſtrict Bandage,which is very troubleſome on the Breaſts. To avoid which inconveniences,I propoſe the ſtopping of the Bloud by a ſmall Button-cauterie; which I acknowledge is not done without ſome pain, but that is momentary, and ſerves to correct the indiſpoſition of the Part: whereas the other lieth gnawing ſo long as it is upon the Part,and rendereth it crude and ill-diſpoſed. There ought to be actual Cauteries of different ſorts ready heated in ſome corner of the Chamber,leſt in the Extirpation there happen to be left ſome reliques of a cancerous Gland behind. All things being ready, the Patient muſt be placed in a Chair to the light, and held ſteady. It is then at the Operatour's choice, whether he will make a Ligature about the *baſis* of the cancerous Tumour, or pull it to him with one hand while he cuts it off with the other. For the cutting into the Breaſt, and pulling out the cancerated Knot, rarely ſucceeds well: nor indeed is every Breaſt ſo capable of being freed of the Cancer when it is cut off by making a Ligature.If the Cancer be cut off clear, your buſineſs is then to ſtop the bloud as you pleaſe: but if any Scirrhoſity remain, you ſhall do well to conſume it by actual Cauterie. The Ancients uſed in theſe Operations to permit them to bleed freely, nay provoked them to it by cruſhing the bloud out; after which the actual Cautery was applied all over, then they dreſſed the Wound as a Burn: But according to my method *pulv. Galeni* is moſt proper. Then place the Patient in bed, and give her an Anodyne draught that night, to quiet the Ferment. The ſecond or third day after you may dreſs her with ſome Digeſtive,as that *ex terebinth. cum vitello ovi*; or, ℞ *terebinth. lotæ* ℥iij. *ſyr.de roſ.ſiccis* ℥jß. *ſucc.plantag. ſolani, an.*℥ij. *ſucc.apii* ℥j. *coquantur ad dimid.ſuccor.conſumptionem*; *dein adde far.hord. & ciceris an.* ʒß. *croci* ℈ij. *vitell. unius ovi: Miſc.* If there be pain, you may apply this Anodyne over it; ℞ *mucilag. rad. & fol.althææ, malvæ, violar.*℔.j. *far tritic.* ℥ij. *ol. roſ.* ℥iij. *coq. ad conſiſtentiam Catapl. addendo in fine coctionis vitell. ovor. num.* ij. *croci* ʒj. *Miſc.* But if there be no pain, dreſs it with *Empl. è bolo.* After Digeſtion proceed with Detergents, and incarn and cicatrize as in Wounds is ſhewed; remembring to keep the Body ſoluble the while by Clyſters, and purge or bleed as you ſee occaſion. And if they had no Fontanels before, make them ſome now: for though the Cure may ſeem ſucceſsful, yet if there be any evil quality in the Humours remaining the Ulcer will ſcarce cicatrize.

If in cicatrizing it the Lips do grow callous, attempt the eradicating it timely by actual Cautery, whilſt it is within a narrow compaſs, and lieth in the ſuperficies: for if you defer it till it hath ſeized the muſculous Fleſh,it will be too late, it being then ſcarce capable of Palliation. Yet ſome Authors have left us Preſcriptions whereby they give us hopes to cure them, or extirpate them. Thoſe they have offered to us for the Cure are much the ſame with what I have already ſet down: *viz.* ℞ *ol. roſ. ceræ alb. an.* ℥ijß. *ſucc. granat. & ſolani an.* ℥ij. *ceruſſæ lotæ* ℥ij. *plumbi uſti loti & tutiæ præp. an.* ʒß. *thuris, maſtich. an.* ʒij. *fiat Unguentum S. A.* Or, ℞ *unguentum tutiæ Vigonis* ℥iiij. *theriacæ Venetæ* ℥j. *ſacchar. Saturni* ʒj. *ſucc. geranii q. ſ. ducantur in mortario plumbeo*, &c. Others commend the Juice of Mullen boiled with Honey. *Riverius* tells you in one of his Obſervations, that he cured one by the often dreſſing it with *aq. roſ. plantag. & rhœad.* with a mixture of *mel roſat.* *Ætius* propoſeth *extract. ſumach:* but that is more proper in Cancers of the *Uterus.*

Empiricks amongſt us brag much of their skill in curing of them; and, by the giving of *Matthew*'s Pill, or Opium mixed with ſome Purgative, they do now and then alleviate the pain, and thereby encourage diſeaſed people to commit themſelves into their hands,whom if they can perſwade to an Amputation,

tation, they get some money in hand: but their frequent miscarriages in that work have taught the more prudent people to avoid them.

Some eminent Chirurgeons, I suppose, after a fruitless endeavour to cure them, have attempted the extirpating of them by Escaroticks. *Guido* hath commended to us Arsenick poudered and sprinkled daily upon them, the Escar being first pulled off. *Riverius* in his Observations tells of a Cancer that was extirpated by this Application: ℞ *aq. fortis* ʒj. *sublimati crudi* ʒviij. *salis Armeniaci* ʒij. *arsenici* ʒj. These are to be distilled *ad siccitatem*, then the *caput mortuum* poudered, and the like weight of Vinegar to be put thereto, and distilled again to the consistence of a soft Paste for use. *Ol. arsenici, aq. regia, ol. vitrioli, lap. caustic.* &c. have been proposed. When such are applied, there will be need of good Defensatives. By the authority of some of these Authors young Chirurgeons have been sometimes engaged to their prejudice: and some years since an eminent Chirurgeon, since deceased, undertook the eradicating of an ulcerated Cancer in the Breast of a Woman that had strength and courage to endure it. He applied the strongest of the forementioned Escaroticks: they penetrated deep, and made great Sloughs, which he pulled off, and by repeating the Escaroticks raised new; but the use of them was not long continued: for the Gleet partaking of the Corrosives ulcerated the adjacent Parts; and the Cancer was so enraged by the Escaroticks, as shewed there was no good to be done by them. Indeed if they had contrived Medicaments that could have penetrated deep with little pain, there might have been some hopes of success. So cancerous Excrescences and Ulcers in the Mouth are increased by the touching them with *ol. vitriol. sulphur.* &c. Upon which consideration there remain but two ways, either the actual Cautery, or palliative Medicines. If the Cancer be in such a place as you may hope to eradicate it, the actual Cautery is then a sure help: but not by applying it lightly upon the upper parts; but by thrusting at the root with a Scoop or Chisel-like Cautery, carrying it away before you. If there remain any rags of it, with a proportionable Button-cautery burn it down to a crust: but if this cannot be effected, then endeavour Palliation by such Medicaments as above have been proposed; and in case the *Menstrua* or *Hæmorrhoids* be stopt, bleed by Venæsection or by Leeches, and make Fontanels: for by such means many people live tolerably well who have Cancers ulcerated; when others, who ailed less, by their impatience are dead. As you may see amongst the following Observations.

A Maid of about twenty years of age, of a healthful Complexion, came to me complaining of a pain in her Breast. I looked upon it, and felt a hard Gland of an oval figure movable. I advised her to keep her hands off of it, and to give her Breast what liberty she could by cutting the Stiffning out of her Bodies, there being little more to be done in such Tumours. I prescribed her a Solution of *sacchar. Saturni in aq. spermat. ranar.* to dip cloaths in, and apply to her Breast, in case of pain; advised her to bleed Spring and Autumn, to purge with Whey, *Manna, cremor tartar.* and to contemperate the Humours with clarified Whey, wherein Borrage, Bugloss, Cichorie, Fumitorie, *&c.* had been boiled. Some time after, upon a new complaint, I added *troch. alb. Rhas. cum opio* to the former Water. By such like Remedies she lived with more quiet of mind many years, and with much ease, and hath lately recommended others to me upon the same account. 1. Observat. of a cancerous Gland in the Breast.

To another, very much pained with a Gland in her left Breast of the bigness of a Chesnut, I prescribed the dressing of her Breast with cloaths dipt in the forementioned Solution, and some days after let her bloud, and prescribed an Electuary of *cassia, manna, pulp. tamarind. cum resina jalapii & sal. tartari*, to 2. Observat. of a cancerous Gland in the left Breast.

take the quantity of a Nutmeg at any time to keep her Body ſoluble. Her pain continuing, I preſcribed an Infuſion to be made of *ſem. cydon. pſyllii, papaver. alb. hyoſcyam. in aq. ſolani & plantag.* She was purged with *decoct. epithymi cum ſyr. de pomis purg.* Barly-creams, Emulſions, with Cra-fiſh, *&c.* were preſcribed. After all ſhe removed into the freſh air, and drank the Waters of *Barnet* and *Tunbridge*; by which ſhe was ſomewhat relieved: and by the repetition of the aboveſaid Preſcriptions the Gland continues quiet, and may to her death.

3. Obſervat. of a cancerous Gland in the right Breaſt.

A Gentlewoman came out of the Country with a cancerous Gland in her right Breaſt, ſhe ſuppoſing it was the *Evil:* but being informed what it was, ſhe deſired my advice. I preſcribed her ſuch like Medicaments to palliate it. She was after ſome while adviſed to conſult others. Some of them applied an *Emplaſtr. galbani* to it: from which time the pain increaſed, and the Breaſt ſwelled. She then returned to me. I anointed it with *valentia ſtramonii*, let her bloud, and purged her with Whey, Manna, *&c.* by which I calmed the Ferment, and ſhe returned into the Country well contented to palliate it, and by that Unguent it is quieted.

4. Obſervat. of a cancerous Gland behind the Ear.

A Gentlewoman, pained with a cancerous Tumour behind her left Ear, was by the ſaid Ointment palliated many years; and, for ought I know, is yet alive.

5. Obſervat. of a cancerous Gland in the left Breaſt.

A Gentlewoman aged about fifty years, of a Scorbutical and very ill Habit of body, had alſo a painful Gland in her left Breaſt. Sir *Fra. Pr.* was her Phyſician, and commended the Cure of that ſwelled Gland to me. She was in a Scorbutical courſe of Phyſick, and had been let bloud by Leeches, Fontanels were made, and ſeveral Medicaments had been applied unſucceſsfully to her Breaſt. I applied this: ℞ *ſevi vitulini* ℥vj. *unguent. roſati, popul. an.* ℥ij. *ol. myrtillor.* ℥iij. *ſucc. plantag. ſolani, geranii, an.* ℥ij. *ſucc. rutæ murariæ, ſummit. rubi, an.* ℥j. *lithargyr. aur.* ℥iij. *tutiæ præparatæ, cancror. fluviatil. an.* ℥vj. *plumbi uſti & ceruſſæ an.* ℥j. *mucilag. ſem. pſyllii, papaver. alb. hyoſcyami extract. in aq. ſpermat. ranar.* ℥iij. *ceræ q. ſ. fiat Unguent. in mortario plumb. S. A.* By the uſe of this her pain was eaſed; yet, being a melancholick perſon, ſhe was not without ſuſpicion of ill from it, and in the Country ſometimes conſulted me in it. But of late years the Gland leſſened and reſolved. Some while after ſhe complained of a pain in her Back, and made bloudy water, which growing more foul, ſhe came to *London*. Her Phyſician being dead, ſhe conſulted others. They all ſuſpected an Ulcer in her Kidneys, treated her accordingly, and ſent her to *Tunbridge*; from whence ſhe returned little the better. She retired into the Country, and enjoys there a tolerable Health. I ſuppoſe this of her Kidneys is a Tranſlation of ſome of thoſe ſharp Humours which affected her Breaſt.

6. Obſervat. of a cancerous Gland in the Breaſt, the extirpation attempted by Cauſtick.

A Gentlewoman of about forty years of age, ſubject to the Gout and Scorbute, conſulted me about a ſmall painful Gland lying ſuperficially under the Skin of her right Breaſt two fingers breadth above the Nipple, not bigger than a ſmall Hazel-nut. It was a *Cancer incipiens*, and like to be of ill quality, beginning with ſo much pain. I propoſed the palliating of it, or the taking of it out by Inciſion. To the former I rather enclined: ſhe replied, ſhe would have it broke, and cured by digeſtion. Some days after ſhe met with one that applied a Cauſtick upon it, and treated it that way; and, being confident of the ſucceſs, ſhe ſent to me to ſee her dreſſed. I went, and ſaw the Ulcer in a ſeeming good condition; but, in handling of it, I perceived part of the Gland remaining hard, which confirmed to me the unſucceſsfulneſs of the undertaking. He dreſſed the Ulcer with *Præcipitat. alb.* upon Lint, and applied over it a piece of boiled Tripe ſcraped thin, (as I was afterwards informed.)

About

About ten weeks after the Patient sent for me. She was much emaciated, and her Breast ulcerated, and fixt to the Ribs, with inverted Lips, and a fœtid Gleet issuing from it. I dressed her Breast with *unguent. diapompholyg.* and applied on the Parts about it *unguent. nutritum*, prescribing a Pearl-Julep to refresh her fainting spirits, and an Anodyne draught that night to dispose her to rest. The next day Sir *Fr. Pr.* appointed her this distilled Milk: ℞ *rad. garyophyll. chelidon. symphyt. tormentill. gentianæ, an.* ℔ß. *fol. plantag. sedi vulg. hederæ terrest. vinc. pervinc. agrimoniæ, an.* M. vj. *fol. veronicæ utriusque an.* M. iv. *glycyrrhiz. Anglic. sang. porcin. an.* ℔ij. *lactis vaccini cong.* ij. *distillentur in organis rosaceis; sumat. ad q.* ℥iv. *tribus horis medicinalibus, addendo singulis vicibus aq. cinnamomi hordeat. cochlear.* ij. *vel* iij. *& tabell. magist. perlar. ex duplic. vel triplic. caudar. cancror. q. s. in saporis gratiam.* And in extremity of pain, ℞ *syr. è cort. citric. & de pomis alterant. an.* ℥iij. *theriac. solani* gr. iij. *sumat. horâ somni.*

I fomented her Breast with a Decoction of some of the aboveſaid Plants, and with some of the Unguents prescribed in the method of Cure of Cancers ulcerated dressed her up, by which she was restored to such a condition as to return to her house in the Country. About half a year after her Physician writ to me, and by her order offered me a sufficient Reward with convenience answerable to come to her. To which I returned for answer, That if he could propose how I might extirpate the Cancer or palliate it otherwise than I had directed her from hence, I would gladly make a Journey to her; otherwise I desired to be excused. How long she lived afterward, I have not heard.

7. Observat.

A Person of Honour aged about thirty eight years was taken with a pain in her right Breast, she thought from some Bruise. A while after she felt a hardness two fingers breadth above the Nipple, which growing more painful, she put her self into the hands of some who pretended to cure it: but the bloud burst out at the Nipple the while, which eased her of the pain. During this the Nipple contracted inward, and by the large and frequent bleeding the Humours became sharp, affecting her Kidneys, and at other times her Hands and Arms, with a *Rheumatismus:* meanwhile her Breast was easier. Thus she suffered some years under the Fermentation of sharp Humours in one part or other, but for the most part in her Breast, which in progress of time raised it into a great unequal Tumour of a brown and livid colour, with turgid Veins overspreading it. Doctor *Whistler* had been often consulted by her, and relieved her as often by Purging, Venæsection, Leeches, Traumatick Decoctions, *&c.*

The Cancer growing great, and the Tubercles ready to disburthen themselves of the corrupt *Serum* which distended them, I was consulted, and, observing the danger the Patient was in, desired a Consultation, & that Dr. *Whistler*, who had discontinued his Visits, might be present, with Sir *Al. Fras.* Dr. *Walter Needham*, and Mr. *Hollier* Chirurgeon, to joyn in the Consultation. Accordingly we met, and considered the Cancer. It was of a very ill aspect, ready to burst, and not fixed. But I, apprehending that after its eruption it would fix, and rage, as is usual at such times, offered to their consideration the taking off the Breast while it was capable of it, lest afterwards it should be objected as a fault. It arising from an outward cause, gave me the more encouragement: but the Patient not admitting of it, we consulted how to treat it. Cordials, Emulsions and Anodyne draughts were prescribed; external Medicaments were also considered to calm the heat of the Cancer. Some few days after a stinking Gleet burst its way out in great quantity by a small Opening, to the great ease of the Patient; upon which the Tubercles and Breast sunk, and, after the casting forth of some corrupt Sloughs, the Matter became well sented,

the Breaſt alſo contracting into an uniform ſhape, grew leſs than the other, and the Patient recovered ſtrength to riſe out of her Bed. Doctor *Whiſtler* attended the Cure, and by good Balſamicks, Traumatick Decoctions, *&c.* diſpoſed the Humours to better temper, inſomuch as the Lady appeared abroad, to the wonder of thoſe that had ſeen her ſome weeks before. She being ſo recovered, it became a queſtion whether it had ever been cancerated. But ſince that there have happened new Eruptions, and there yet remaineth ſuch hardneſs and inequality in it as will demonſtrate what it was.

8. Obſervat. The year before the Sickneſs a young Woman came to me complaining of a grievous pain in her right Breaſt. She was of a healthy Complexion, and her Breaſt ſeemed to look as well: but in handling of it I did feel a couple of hard Glands. She had conſulted others, and came to me to cut them out. I diſſwaded her at that time from ſuch thoughts, by telling her the inward Cauſe was firſt to be removed, and the Humours better diſpoſed. To which purpoſe ſhe was let bloud, purged with Infuſions of *Sena*, &c. and adviſed to drink the Waters of *Epſom* and *Tunbridge*. I alſo directed her ſome of the Medicaments ſet down in the method of Cure, to alleviate her pain. Some weeks after ſhe came again, and told me ſhe was informed that ſhe ſhould not be eaſed of her pain till thoſe Knots were taken out. I told her thoſe Glands lay deep, and the muſculous Fleſh and Parts about were infected with the ſame Juices, and conſequently the Operation could not be ſucceſsful unleſs the Breaſt were cut off. Upon which ſhe departed from me unſatisfied, and ſome days after put her ſelf into the hands of another, who cut out thoſe Glands, and endeavoured to cure. But it grew cancerous; and then he cut off the whole Breaſt. Some months after, when it was near cured, ſhe came and ſhewed it me with much joy. I felt it hard round about, and ſuſpected it would not cure; as indeed it did not: for ſome months after ſhe came again to me with it ulcerated deep and wide into the pectoral Muſcle and Parts about, and fixed to the Ribs. She grievouſly bemoaned her misfortune, in permitting it to be cut off. By this and ſuch like work I have been taught not to cut off Breaſts that cancerate from an internal Cauſe. I did what I could to eaſe her pain by palliating the Ulcer, but it was too late.

9. Obſervat. of a Cancerous Breaſt cut off. In the time of my waiting at the publick Healings there came to me a Country-maid, aged about twenty ſix years, of a ſickly Complexion, diſeaſed with a Cancer in her right Breaſt ariſing from ſome accidental Bruiſe. It firſt ſwelled, then grew hard, and in progreſs of time ulcerated, and had frequently bled to the quantity of a quart at a time, and ſometime to two quarts, as her Friends told me. I conſidered the Breaſt as incurable, and judged the bleeding to ariſe from a *Fungus* which lay too deep to be reached by any Medicament: therefore thought it reaſonable to propoſe to them the extirpation of the Breaſt before it ſhould be fixed to the Ribs. They had tried many things unſucceſsfully in the Country: and, being now informed that it was not the *King's Evil*, they were not unwilling that it ſhould be cut off, but took time to conſider of it; and about a month after came to me again reſolved for the work.

The taking off of this Breaſt happened to be ſeaſonable for the experimenting of the Royal Stiptick liquor which was given me the morning before by His *MAJESTY*'s command: upon which conſideration I provided no other Aſtringent than a couple of Buttons made of Lint which lay wet in a ſpoonful of that Water. But, in order to the bringing the Lips of the Wound together, I had prepared a couple of Needles with a ſtrong twiſted Thread cered, alſo a Digeſtive *ex terebinth. cum vitello ovi*, &c. ſpred upon Pledgits, with Compreſs and Bandage. Being thus provided, I attended ſome Friends who deſired to ſee the efficacy of the Water. But Doctor *Walter Needham* being come,

come,and it growing late in the evening,we proceeded in the work.He pulled up the Breaſt while I made a Ligature upon the *baſis* of it, and cut it off. The two Arteries bled forcibly out, till Doctor *Needham* applied a wet Button on the one, and my Kinſman *Jaques Wiſeman* applied the other. That of the Doctor's ſtopt the Bleeding at that very inſtant,and the Compreſs adhered to it; but the bloud dribbled from under the other: which we ſuppoſed happened by reaſon of the bloud ſtreaming upon it in the putting it on.But by the application of a freſh Button the Bleeding there alſo ſtopped.During this the Lips of the wound were brought nearer to each other by a croſs ſtitch. We then applied our Digeſtive with convenient Bandage over it,and laid the Patient in her Bed. In our abſence ſhe fainted, and upon the drinking a draught of cold water vomited,and her Breaſt bled through the Dreſſings. Upon ſight thereof I took off the Dreſſings, and ſeeing one of the Arteries ſeepe, I applied a freſh Doſſil, and ſtopt it: but it being night, and dreading miſchief might happen if it ſhould bleed again, I ſent for a ſmall Button-cautery, and that way ſecured it. The third day we took off Dreſſings, and found it well digeſted; and from that time it cured daily. But ſhe complained of a ſoarneſs of that ſide of her Throat, which ſhe had done ever ſince her Breaſt was cut off, and within a week after of a ſhortneſs of breath; upon which ſhe was let bloud; and by my Friend's preſcriptions ſhe was alſo purged with *infuſ. ſennæ, rhabarb.* &c. and afterwards with *pil. fœtidæ*, &c. Her Breaſt being near cicatrized, ſhe was ſupplied with Dreſſings, and returned to the Country the ſixth week after the cutting it off. But ſhe continued there indiſpoſed, and the *Cicatrix*, by reaſon of the ſharpneſs of Humours, fretted off, and inlarged the Ulcer very much: whereupon ſhe returned to me again. I dreſſed the Ulcer with *unguent. tutiæ*, &c. and let her bloud; then purged her as aboveſaid, made her a Fontanel in her left Arm, and in few weeks cicatrized her Breaſt. Since which time I have ſeen her often in Town in very good health, and her Breaſt firmly cicatrized, without pain or hardneſs.

10. Obſervat.

A perſon of about fifty years of age, having ſome ſcirrhous Glands in her left Breaſt,was impatient to have them diſcuſſed or ſuppurated: to which purpoſe ſhe conſulted ſeveral of our Profeſſion,and afterwards my ſelf. She was under the hands of ſome Empiricks, that were endeavouring by Pultices to break it: there was alſo a Fontanel made in the lower part of the Breaſt under the Tumour,ſhe hoping that way to ſpend it. I adviſed her to forbear the uſe of ſuch Applications as might heat her Breaſt, telling her the ill conſequence in breaking thoſe Swellings. She did not approve of what I ſaid, but purſued her deſign.Some time after a falſe Suppuration was made in her Breaſt,and an effuſion of bloud followed; and by the continued uſe of Pultices the Ulcer inlarged, and by frequent Bleeding her Body emaciated. She being very near waſted by a new Eruption ſent for me. I ſtopped the Bleeding by the application of *pulv. ſang. dracon.* with Pledgits of *unguent. deſiccativum rubrum*, with a ſoft cap of Tow preſſed out of *Oxycrate*.The next day I took off the Dreſſing, and found it had not bled. I alſo obſerved the Tumour to be a meer *Fungus*, and the Ulcer an Excoriation of the Skin which encompaſſed it round, and the frequent Bleeding occaſioned by Eſcharoticks and hot Cataplaſms. I dreſſed the Breaſt with Epuloticks,as *unguent. tutiæ Vigonis*,and ſuch like,and with cloaths dipt in *aq. ſpermat. ranar.* with *ſacchar. Saturni*; and in ſome parts I applied Pledgits dipt in the ſame, with a Solution of *troch. alb. Rhaſ. cum opio*,by which the heat was contemperated,& the Excoriation cicatrized. Sir *Fra. Pruj.* was in the while conſulted, and preſcribed her this; ℞ *antimonii diaphoretici* gr. 15. *magiſt. perlar.* gr. 6. *fol. auri num.* j. *Miſc. pro una doſi,& ſic pro aliis*; *detur horis matutin. & quartis pomeridianis, ſuperbibendo ſequent. Julep.*

Julep. ℥iv. *singulis vicibus:* ℞ *aq. stillat. borraginis, bugloſſi, cardui benedict. ſcordii, dracont. an.* ℔ß. *syr. è ſucc. citr. & de pom. alterant. an.* ℥iv. *ocul. cancror.* ℥ß. *aq. cardiacæ* ℥iv. *Miſc. in uſum præſcript.* And to diſpoſe her to reſt, ℞ *syr. è ſucco citr. garyophyll. an.* ℥iij. *theriac. ſolani* gr. iij. *ſumat. horâ ſomni.* Diſtilled Milk, Emulſions, *&c.* were preſcribed; her Body was kept open by Clyſters; and, after ſhe recovered her ſtrength, ſhe was purged with Whey, Manna, *&c.* Thus in a few weeks ſhe was cured: but the Tumour remained, and retained the colour of the Bloud lying underneath it. In the time of the Bleeding, by the application of Eſcaroticks and hard Bandage a Gland was raiſed under the right *Axilla*: but by forbearing the uſe of Bandage, and my dreſſing her Breaſt with Lenients, the pain therein ceaſed, and ſhe injoyed a good meaſure of health, and was my good Friend, till about a year after it was told her that one Mrs. *R.* who laboured of a Cancer in her Breaſt, had cauſed a Mountebank to cut it off, and that ſhe was thereby cured. Upon this ſhe ſent for me, and would have her Breaſt cut off. I declined it, and ſhewed her, as I thought, ſuch reaſons as might have diſſwaded her from ſuch an Enterprize: but ſhe was reſolved, and, after I was gone, ſent for the Empirick, who undertook to extirpate it by Eſcaroticks: and ſhe bled to death in few days. I was ſent for; but, being out of Town, ſhe was dead before I came to her. If ſhe had not been in ſuch haſt, ſhe might have out-lived that Gentlewoman: for her Breaſt cancerated, and ſhe died within a few months after.

11. Obſervat. A perſon of about forty years of age, of a very ill Habit of body, from her very youth had a hard Gland on her right Side near her Breaſt: it had ſome pricking pain in it, but was movable: it ſeemed to me a *Cancer inſipiens*. I was willing to apply ſomewhat to it, but, ſuſpecting that the increaſe of the Gland might be imputed to it, adviſed her to keep her hands off it, and to lace her Bodies more ſlack; telling her, that upon her return to *London* the Autumn following, if ſhe were not better, ſhe might conſult thoſe of our Profeſſion. She did ſo, and accordingly as ſhe had propoſed came to Town again, and ſent for me. The Gland was then grown bigger and more painful, but was movable: there was alſo a ſmall painful Gland under that *Axilla*, which much diſcouraged my undertaking. I acquainted her Phyſician of the danger ſhe was in, and wiſhed him to propoſe to her the conſulting ſome others. The next day Doctor *Wharton* met the Ladie's Phyſician, Doctor *Windebanck*, and my ſelf. At the Conſultation I declared my thoughts of that Gland, *viz.* that it was a Cancer, and by the progreſs it had made in three months it was like to be a difficult work, and wiſhed the Patient might be acquainted with the danger; for by her diſcourſe to me ſhe expected I ſhould ſpeedily cure her, and that by ſuppurating the Gland: which way was deſtructive. For, according to *Galen*, and our daily experience, *ab emollientibus exaſperantur*: and to proceed by Repellents and Diſcutients were only to palliate; which I doubted we ſhould not be long able to do. The only hope then remaining was, cutting into the Skin, and taking the Gland out while it was movable. This was not approved of. We then conſidered what to dreſs it with. Doctor *Wharton* would needs leave that to my care: but I, having no inclination to be engaged in it, deſired it might be preſcribed by us, and made by the Apothecary; which was as followeth. ℞ *aq. ſpermatis ranar.* ℔j. *ſem. pſyllii, papaver. albi, cydon. an.* ℈ij. *extrahatur mucilag. cui add. troch. alb. Rhaſ. cum opio* ℥j. *ſacchar. Saturni* ℈j. *Miſc. fiat mixtura parti affectæ tepide linteis in illa madefactis applicanda:* then a diſtilled Milk; ℞ *fol. agrimoniæ, veronicæ utriuſque, garyophyll. plantag. borrag. fumariæ, heder. terreſt. an.* M. iij. *limac. cum teſtis* ℔ij. *paſſul. maj.* ℔j. *aſtacor. fluviat. num* 24. *glycyrrhiz. rec.* ℔ß. *ſem. fœnic. dulc. coriand. an.* ℥iv. *fiat omnium diſtillatio in congiis* ij. *lactis vaccini recentis; dulcoretur cum ſacchar. perlar. q. ſ.*

q.s. capiat. ℔ß. 3 *horis medicinalibus; in hauſtu ultimo, horâ ſomni, capiat alternis noctibus* ℥j. *ſyrup. de papaver. erratic.* ℞ *aſſellor. recent. num.* xx. *piſtentur & macerentur in hauſtu aq. lactis præſcript. capiat horis matutinis tres dies continuos.* Many things were preſcribed, both internal and external: but ſhe was no way relieved. When the Glands were not painful, ſhe was ſick of ſome *Diarrhœa*, Catarrh, *&c.* and if ſhe was well in health, then the Glands were painful: and while this bigger was treated, it would feel ſoft in ſome part, and be protuberant, and after a while harden again. Thus every new Fluxion increaſed this Gland, and gradually made it unequal; yet it continued movable: which gave me one time an occaſion to tell her, that the cutting the Skin, and taking that Gland out whole, was the beſt way to free her of it. She, perceiving that I had no inclination to ſuppurate it, as ſhe hoped I would, was contented that I ſhould draw off, to make way for ſome other. About two months after I met with one that attended the Cure; who told me they had ſuppurated it, and were in hopes to cure. I replied, You will only have a Gleet; as indeed it proved: and afterwards it thruſt out a large *Fungus*. She was then deſirous to have it cut off, but it was too late.

12. Obſervat. of a cancerous Wen gangrened and cured.

A Woman of about thirty ſix years of age was ſuppoſed to have a Cancer in her left Breaſt, and had been palliated many years by Sir *Fra. Pr.* One day, ſhe being at her houſe in the Country, it did break, with very exceeding pain. She writ to her Phyſician, who ſent me to take off the Breaſt. When I came, I ſaw it gangrened, and was ſomewhat ſurprized at the novelty. The Tumour was round, of a very great bulk, and movable; it was gangrened by reaſon of the overſtretching of the Skin. The Mortification had eaten through the Skin the compaſs of the palm of a hand. I cut it into the body of the Tumour, and found it a cancerous Fleſh, and lying within a *Cyſtis*. I, ſuppoſing it a cancerous Wen, (how properly I know not, it being the only one I ever ſaw,) fomented it with Wine, dreſſed it up hot with *unguent. baſilicon*, and gave her an ounce of *ſyr. de meconio* in a draught of Mace-ale, to quiet her pain. The next morning I found her much afflicted, and ſaw many cloaths wet with the Gleet, the Mortification was much ſpred in the Skin, and the cancerous body cracked as a Pomegranat over-ripe. I conſidered the Gangrene, and ſuppoſed it would ſave me the labour of cutting off the Breaſt, and that it would ceaſe upon the pulling away of the cancerous body. Upon which conſideration I pulled out that part which was outermoſt, I believe the fourth part of it; and would then have pulled it all out by dividing the Skin, but ſhe would not permit it. I continued my way of dreſſing as before, ſtay'd at the houſe with her three days, and dreſſed it twice a day, pulling out ſome part of the Wen each time. The Gangrene in the Skin ſtopped, and ſhe became very eaſie. But perceiving ſhe would not permit me to thruſt out the remaining Wen, I deſired a neighbouring Chirurgeon might be ſent for: who being come, we dreſſed the Patient. I ſhewed him that by Digeſtion the remaining fleſhy body with the *Cyſtis* would come away, and by that time the Lips with the Skin would be ready to unite with the whole: which accordingly came to paſs, and ſhe was perfectly cured in leſs than ſix weeks, and is yet well.

13. Obſervat. of a cancerous Tumour on the Head.

A Man of about fifty years of age came to me out of the Country with a hard unequal Tumour, of the bigneſs of a large Wall-nut, between the Coronal and Sagittal Suture: it had been ulcerated, but was at that time cruſted over with a Scab, and ſeemed to be a milder ſort of Cancer. He ſuppoſed it the *King's Evil*; but being aſſured by me otherwiſe, he deſired my help. I, conſidering its *baſis* reſting upon the *Cranium*, made no difficulty in the undertaking it. Therefore providing Dreſſings ready, I made an Inciſion round it to the Scull; then raiſed it off with a *Spatula*, and permitting the bloud to flow

flow a while, dreſſed it up with Aſtringents. The third day after I took off Dreſſings, and ſaw the Lips of the Wound well diſpoſed, and the *Cranium* uncorrupted. I raſped it till the bloud appeared under it, then dreſſed up the Wound with Digeſtives *ex terebinthina*, &c. and after Digeſtion incarned and cicatrized it with as little difficulty, and diſmiſſed him cured.

14. Obſervat. of a Cancer on the left Cheek.

A Man about twenty eight years of age came out of the Country recommended to me with a Cancer on his left Cheek, ſtretching it ſelf from that ſide of his Noſe cloſe under the lower Eye-lid to the external *Canthus*, ſo making a compaſs downwards. It was broad in its *baſis*, and roſe copped like a Sugar-loaf. It gleeted, and was accompanied with Inflammation and much pain. He had alſo ſome ſcirrhous Glands under that Jaw. The extirpation of this Cancer had been attempted in the Country; but it growing afterwards bigger, and threatning his Eye lately with Inflammation, he haſtned up, and importuned me to undertake it. I complied with his deſire, and four or five days after, having prepared all things ready, *viz.* actual Cauteries, Digeſtives, Defenſatives, Bandage, *&c.* Doctor *Walter Needham* and my Kinſman *Jaques Wiſeman* being aſſiſting, I pulled the Tumour towards me with the one hand, during which I made my Inciſion cloſe by the Eye-lid, and cut it ſmooth off, as cloſe to the *Os jugale* as I could do it, avoiding the *Perioſteum*. The bloud at firſt ſpurt out forcibly from many Capillaries beſides two conſiderable Arteries: we permitted them to bleed a while. The leſſer Veſſels ſtopped of themſelves, and we cauterized the greater afterwards. Then viewing our work, and obſerving ſome relique of the Cancer remaining above the external *Canthus*, we conſumed it by actual Cautery, and dreſſed up the Wound with our Digeſtive, with Embrocations, Defenſatives, and moderate Bandage to retain them. The third day we took off Dreſſings, ſaw it well diſpoſed to digeſt, and dreſſed it as before. The ſecond day after, dreſſing it again, the Cancer appeared riſing from the ſide of the Noſe and Eye-lid; it alſo over-ſpread the Cheek-bone. I dreſſed it as I had done the time before; and the next time came prepared with actual Cauteries, and conſumed it all, then dreſſed it up with Lenients. From that time the Ulcer healed daily, and contracted in ten days ſpace to the half: yet ſince that it begins to bud again here and there, which will put me upon a neceſſity of uſing the actual Cautery: and what account to give of it I yet know not.

15. Obſervat. of a cancerous Excreſcence of the lower right Jaw.

A Gentlewoman aged about forty years, of a ſtrong healthy Conſtitution, came out of the Country diſeaſed with a large fleſhy Excreſcence, painful, and of a livid colour, thruſting out from the Gums of the lower right Jaw. It had rotted the Teeth neareſt to it, and weakned the reſt, by the Ulceration and Relaxation it had made in the Gums. It had been viewed by ſome of our Profeſſion, who declined the medling with it as cancerous; for which reaſon I undertook it: for, ſuppoſing it a Cancer, it ought the rather to be extirpated whilſt it affected ſome particular Part that was capable of it. The ill conſequence of ſuch omiſſions may be judged by the following Obſervations. I readily undertook the freeing her of the Excreſcence by actual Cautery: which ſhe conſenting to, I cauſed a Scoop-like Cautery to be made proportionably big, to thruſt off the Excreſcence at once with its root: then ſent for *La Roche*, who punched out the ſtumps of the Teeth that were in my way. Then, one of my Servants holding her Head ſteady whilſt another held her lower Lip down and her Tongue on one ſide, I preſſed with the Cautery well heated into the lower part of the Gum, and extirpated it quite; then with a Bolt-cautery conſumed and dried the lax and rotten *baſis:* which being done, ſhe held in her mouth a *decoct. hordei cum ſem. cydonior.* and uſed it daily till the Eſcar ſeparated. I then made her a *decoct. plantag. equiſet. ſummitat. rubi, flor. roſ. rub. balauſt.*

balauſt. cum ſyr. de roſ. ſiccis, with which and the Vitriol-ſtone I cicatrized the Ulcer firmly. I neither purged her, nor let her bloud; ſuppoſing the latter would be more ſeaſonable after in caſe of Inflammation: but there happening none, that was omitted. And ſo was the Purging, I ſuppoſing it might put the Humours rather upon a Ferment. She was cured in leſs than three weeks, and continueth well.

A perſon of about fifty years of age, of a ſtrong Conſtitution, by cracking of an Apricock-ſtone cauſed a pain amongſt the great Teeth of his upper Jaw on the left ſide. From that time that part of the Gum ſwelled, and one Tooth grew looſe, and after ſome time a *Fungus* thruſt the Tooth out. A *French-man*, Chirurgeon to his Regiment, endeavoured to conſume the *Fungus* with *oleum vitrioli* and ſuch like: but it increaſing ſpred farther, & affected the whole Jaw, inſomuch as all his Teeth dropt out to the *Septum*. The *Fungus* greatly increaſing thruſt out two diſtinct Lips, the one whereof ſtretched out the Cheek, and the other overſpred that ſide of the Roof of his Mouth. The Patient being in this condition came up to *London*, and called to a Conſultation Sir *Fra. Pr.* and Doctor *Bate* Phyſicians: of Chirurgeons there were Mr. *Arris*, Mr. *Edward Molin* (deceaſed,) Mr. *Shunbub*, a *German*, Chirurgeon to his Grace the Duke of *Albemarl*, Mr. *Troutbeck*, and my ſelf. We, being met, ſaw the Patient dreſſed; his Chirurgeon pulling out a Tent very big and long from between the two *Fungi* in that place where the Diſeaſe began. After we had ſeverally conſidered the Malady, we withdrew to conſult, and, unanimouſly concluding it an ulcerated Cancer, propoſed various Remedies in order to Palliation; as ſhaving the Hair of his head, applying Cephalicks, a Seton in the Neck, Fontanels, Bliſtering, Bleeding, Purging, *&c.* Coming to the Patient with the Preſcriptions, he asked what way we had deſigned to cure him. After ſome pauſe, (for we, having no hopes of curing him, had not diſcourſed of that,) Sir *Fra. Pr.* anſwered, the attempt of Cure in ſuch Ulcers had been always unſucceſsful and extream painful, *viz.* by Burning, and thereby the Diſeaſe hath been for the moſt part exaſperated, and the Life of the Patient ſhortned. The ſame was affirmed by us all. The Patient replied, God's will be done. I pray go and conſider of the way: for I had rather die than live thus. We withdrew, and reſolved to comply with his deſire, returning ſuddenly again to him with that Anſwer, and commended to him Mr. *Edward Molin*, that excellent Operatour. But he refuſed it, as being preingaged to go out of Town. It was then put upon me: and at their deſire I undertook it, and gave directions for the making actual Cauteries of various ſorts, ſome Bolt-like, others like Chiſels, others of other faſhions. There were Inſtruments alſo made to defend his Tongue and Lips. While theſe were making, the Patient was let bloud, purged, and prepared for the work. That done, we met again, and had the Inſtrument-maker attending to heat the Cauteries, and mend or alter them as occaſion ſhould offer. One of the Aſſiſtents held his Head and upper Lip, whilſt I with a *Speculum oris* held down the Tongue with the one hand, and with the other paſſed a plain Chiſel-cautery juſt under the upper Lip into the body of that part of the Cancer which ſtretched it ſelf along the Roof of the mouth to the Palate, and repeated the uſe of that-faſhioned Cautery till I had made a ſeparation of ſo much. The carrying the Cautery thus in the middle of that cancerous Lip was the way to preſerve the ſound parts from being ſcorched with the reflexion of the glowing Iron. It was alſo a great encouragement to the Patient to ſee ſuch gobbets burnt off with ſo little pain. After I had ſcooped off what I could of that Lip, then with Olive and Bolt-like Cauteries by burning I dried up the remainder to a cruſt. That done, I went to work with the other cancerous Lip which lay ſtretched along that

16. Obſervat.

part of the Jaw to the Cheek, and raiſed it up as a Trumpeter's in the time of ſounding. I paſſed a Chiſel-cautery into the body of that, and made a riddance of a great part of it, cutting and burning through the *Alveoli*, which were as rotten as dirt, till the Patient grew weary, and the Phyſicians thought it was enough for that time. We then gave him of this Lotion to hold in his Mouth to cool it: ℞ *ſem. cydonior.* ʒ j. *ſem. pſyllii & papaver. albi an.* ʒ ij. *extrahantur mucores in aq. plantag. ſolan. & ranar. an. part. æq.* That night he was laid to reſt with this; ℞ *aq. paralyſeos* ʒ ij. *aq. theriacalis* ʒ iij. *ſyr. de meconio* ʒ vj. *Miſc.*

The next day in the afternoon the two Phyſicians and ſome of the Chirurgeons met me at the Patient's Chamber. He had ſlept well, and was for the work, he ſaid, placing himſelf very chearfully in the Light. Renewing my work, and feeling with my Finger the length of that Lip ſtretching by the Roof of the mouth, I felt a moiſture in a chink, which I ſearched with a Probe, and found a hollowneſs over the Roof, from whence there iſſued Matter. On the other ſide, which I burnt laſt, the Fleſh was high. I began with that over the Roof, and burnt all that part dry, and left it lying hollow like an Arch: then burnt the other ſide with Olive and Bolt-cauteries down towards the *baſis* of the *Alveoli*, and found the remaining Sockets full of the ſame looſe Fleſh. I burnt into each of them, and at the ſame time dried them what I could; and where-ever I ſaw any Excreſcence, I conſumed it, and thereby ſmoothed my work. It was not eaſie to diſtinguiſh the ſound from the unſound by reaſon of the ſwelling in the neighbouring Parts. It was alſo much more painful to the Patient, as the ſenſe of the Nerves and Membranes were more exquiſite than that of the hard Lips which I conſumed the day before. Yet he ſat chearfully, till I declared that I had not left a cranny uncauterized: then he roſe, and waſhed his Mouth with ſome of the forementioned Mucilage, to which there were ſome beaten whites of new-laid Eggs added. His conſtant Drink was this: ℞ *rad. ſarſaparillæ* ʒ vj. *infund. in aq. font.* ℔ ix. *per horas* xij. *tum add. rad. ſcorzoneræ* ʒ iij. *ſummitat. majoranæ, meliſſæ, an.* M. j. *flor. cordial. an.* M ß. *pom. redolent. num.* vj. *coq. ad tertiæ partis conſumption.* ℞ *decocti præſcript.* ℔ j ß. *cancr. fluviat. coct. num.* xvj. *amygdal. dulc. num.* vj. *nuc. pin.* ʒ iij. *manus Chriſti perlatæ* ʒ j. *fiat Emulſio.* Of which latter he took thrice a day. About 12 of the clock that night he ſent for me, and told me I had changed his pain: It was before, ſaid he, a gnawing pricking pain, but now it is burning hot; yet, ſaid he, I did not ſend for you ſo much to eaſe my pain, as to rejoyce with me in my recovery. I embrocated the Cheek *cum oleo & aceto roſac.* and afterwards applied ſoft cloaths dipt in the ſame, adviſing him to hold ſome of his formerly-preſcribed Lotion in his Mouth, and gave him a draught of his Anodyne, which laid him to ſleep. In the morning, when he wakened, he called his pain a comfortable heat. His Phyſicians preſcribed him a Clyſter, and this cordial Electuary and Julep: ℞ *pulpæ conſ. lujulæ, garyophyll. an.* ʒ j ß. *confect. de hyacintho* ʒ j ß. *marg. præparat.* ʒ j. *magiſt. è coralliis* ϑ ij. *ſyr. garyophyll. q. ſ. fiat Opiatum; capiat q. nuc. moſchat.* ʒ *horis medicinalibus, ſuperbibend. Julep. ſequens;* ℞ *aqu. ceraſor. nigror. flor. tiliæ, an.* ʒ vj. *aq. theriacalis* ʒ ij. *ſyr. garyophyll.* ʒ j ß. *Miſc.* I viſited him daily, and where I ſaw looſe fleſh ariſe, I burnt it down with one Cautery or other moderately heated. A learned Perſon viſiting him often, and for the moſt part finding me there drying and ſmoothing my work with the actual Cautery, ſuſpected the event, and went out from us mumbling that Aphoriſm of *Hippocrates, Quibus ſunt Cancri in Palato, Sede, Utero, &c. ſi urantur ulcera, cicatrice induci non poſſunt.* It much diſturbed me, but I proſecuted my Cure more induſtriouſly; and by drying the looſe Fleſh whereſoever it appeared, as alſo the Bones, I diſpoſed them to caſt off, and the Fleſh

Flesh to a hard *Callus*, which cicatrized with the adjacent Parts. In the time of the cicatrizing I prescribed him this Water to wash his Mouth before and after meat: ℞ *aq. plantag. equiseti, fragor. an.* ℔ j. *flor. ros. rub. balaust. an.* M. j ß. *coq. ad* ʒ. *partis consumptionem; colaturæ add. syr. diamoron, de ros. siccis, an.* ʒ j ß. *acet. rosac.* ℥ vj. *Misc.* By this method he was cured in the space of six weeks with a firm and smooth *Cicatrix*. Doctor *Bate* whispered Sir *Fra. Pr.* that it would not hold a Month: but it held seven years, or thereabouts. Others of our Profession, who at our first Consultation had declared it an incurable Cancer, did afterwards, when they saw it cured, declare amongst their Companions that it was no Cancer. Such an irresistible Disease is a Cancer.

In the year sixty eight the same person, being at his house in the Country, was taken with a Fever, which after some days terminated by a *Crisis* in the outside of the same Cheek from which the cancerated Jaw had been extirpated. They dressed it with Pultices of Chickweed and the like, by which it suppurated, and discharged its thin Matter by small Eruptions; the grosser remaining rendred the Ulcer sordid and callous. Upon which they sent for a Chirurgeon, and afterwards for a Physician of that Country. They dressed it about half a year. It not yielding to their Applications, they consulted me by a Letter: to which I returned Answer, that I suspected it cancerous. Upon the receipt of it, he came to *London*, believing at the worst I could burn it out. He here consulted divers eminent Physicians and Chirurgeons. It was now a Cancer, and indeed not capable of extirpation, having seized that side of his Throat. I attempted some part of it within by the actual Cautery: but it not succeeding, and I being soon after fetched into the Country, others were employed: but after all he languished and died.

17. Observat. of a Cancer under the Tongue.

A Captain of a Company in one of His *MAJESTY*'s Regiments of Foot quartering in the North of *England* was troubled with a small Excrescence under his Tongue. He consulted the Physicians and Chirurgeons in his neighbourhood: but it increasing with pain, he was perswaded by his Friends to come to *London* to me. But after he came to Town, he met with some who told him that such a small thing was not worth the troubling me. Upon which he went to some other, and, having got somewhat to dress it, he returned to his Command in some of the neighbouring Counties, and there fell into the Chirurgeons hands, where it increasing and spreading much infected the internal salivary Glandules on both sides the Tongue, all the lower left *Maxilla*, and part of the right. 'Twas fixing upon the lower Lip, the Teeth all loose, and some of them fallen out: there were also some Glands without under the Jaws. In this condition he came to me. I acquainted his Friends that it was a Cancer, and incurable. If an attempt was to be made in hopes of Cure, it was to be by burning it out. They consulted their Friends: and afterwards Doctor *Tho. Cox*, Doctor *Walter Needham* and my self met. It was concluded by them, that there was no other way or hopes to cure him: how that might succeed we doubted. If he would have it attempted, it should be at his desire, and not upon any assurance from us to cure him thereby: for indeed it was doubtful. The next day he sent for us to meet at his Chamber in order to the extirpation. Accordingly we met, and, having Mr. *Gosling* with us, and our actual Cauteries and all things ready, we placed the Patient in a clear light, then pulled out the Teeth that lay loose, and as it were buried in the *Fungus*. Then having his Head held firm, and his lower Lip defended, I passed in a plain Chisel cautery under the *Fungus*, as low as I could, to avoid scorching of the Lip, and thrust it forward towards the Tongue, by which I brought off that *Fungus* and the rotten *Alveoli* at twice or thrice repeating the Cautery; then with Bolt-cauteries dried the *basis* to a crust. After

with a Scoop-cautery I made a thruſt at the *Fungus* over-ſpreading the left Jaw, and made ſeparation of that, and what was rotten of the *Alveoli*: then with Olive and Bolt-cauteries I dried that as well as he would permit, and left the reſt for the next day's work, giving him ſome *decoct. hordei cum ſem. cydon, pſyllii, & alb. ovor.* beaten in it, to cool the heat in his Mouth, and applied on the outſide under his Chaps this Defenſative: ℞ *boli armen. pulv.* ℥ j. *pulv. flor. roſar. rubr. balauſt. ſumach, an.* ℥ ß. *gallar. pulv.* ʒ iij. *coq. in acet. acer.* ℔ ß. *ol. roſ. & myrtill. an.* ℥ ij. *empl. de minio q. ſ.* The Phyſicians preſcribed this: ℞ *laudani* gr. iij. *ſolv. in aqu. epidemic. cinnamom. hordeat. an.* ℥ j ß. *ſyr. kermes* ʒ iij. *capiat tertiam partem ſtatim, repetátque altern. horis donec placide dormierit.* This following Cordial was alſo prepared: ℞ *aq. epidemic.* ℥ viij. *ſyr. caryophyll. è ſucco citr. cardiac. an.* ℥ ß. *ſumat cochlear.* iv. *ad libitum in languoribus.*

The next day we met again, and found our Patient much relieved with the good night's reſt he had got: he was chearful, and reſolved for the work. I began with Bolt and Olive-cauteries to make an end of drying that *Fungus* on the left Jaw; which having done, I burnt the ſalivary Glands on both ſides of the Tongue: then I placed a Tin-inſtrument between the Tongue and the Excreſcence which was rooted on the *Ranula*, of the ſhape of a *Criſta*, thick and hard, bearing the Tip of the Tongue backward. The Tongue thus defended, I thruſt at the root of it with a Bolt-cautery, by which I eradicated and burnt it off. Having thus cleared the Mouth of the *Fungi*, I deſired the Phyſicians Judgment of it: they looked, and liked what was done: the Patient waſhed and cooled his Mouth with the ſame Lotion as before, and had liberty to repeat the uſe of the Opiate and Cordial.

The next day we met again, and found our Patient well ſatisfied with what had been done, it being only ſtiff and hot, otherwiſe not painful, and he could take his ſuſtenance with more eaſe and Guſto. The Phyſicians preſcribed him this Clyſter to make his Body ſoluble: ℞ *decoct. com.* ℥ x. *elect. lenitiv.* ʒ vj. *mell. violac. & ſacchar. rub. an.* ℥ j ß. *ol. amygdal. dulc.* ℥ j. *Miſc. fiat Clyſter.* The ſecond day they purged with the following Apozeme: ℞ *fol. ſenæ* ℥ j. *turbith & hermodact. an.* ʒ ij. *ligni ſaſſafras, ſem. coriand. an.* ʒ j. *nuc. moſchat.* ʒ ß. *ſalis tartari* ℈ ij. *infund. & bull. in aq. beton. ſ. q. fiat colatura ad* ℥ xij. *cui adde ſyr. de pom. magiſt.* ℥ j ß. *ſyr. roſ. ſolut. mannæ, an.* ℥ j. *clarificentur ovi albumine, & fiat Apozema pro tribus doſibus matutinis, ſumend. horis duabus ante jeſculum cum cuſtodia.* There was alſo preſcribed this following Traumatick Decoction: ℞ *ſarſaparill.* ℥ ij. *chinæ* ℥ j. *raſ. eboris, corn. cerv. an.* ℥ j. *infund. & bulliant in aq. font.* ℔ vi. *addendo debito tempore ſummitat. elatin. hyperici, millefolii, herb. Robert. an.* M. j. *ſem. coriandri* ʒ ij. *cinnamomi* ʒ j ß. *paſſul. enucleat.* ℥ ij. *colat. ad* ℔ iv. *bibat* ℔ j ß. *in die quotidie.* By the extirpation of the *Fungus* within, the hard Glands under the Chaps without diſſolved: but the Patient not permitting me to keep down the *Fungus* afterwards as it aroſe, it quickly over-ran all his Mouth, and thoſe Glands ſwelled again and apoſtemated, and afterwards indurated amongſt the internal Muſcles of the *Larynx*, and haſtned his death. Yet long before that he admitted me to uſe the actual Cautery, but ſo ſparingly as it ſignified nothing. Indeed ſome Empiricks promiſed him great hopes of Cure by their Specificks: but he languiſhed and died notwithſtanding all our endeavours.

18. Obſervat. of a Cancer on the Tongue.

Thus another perſon of about ſixty years of age, having been long diſeaſed with a Cancer on the left ſide of his Tongue, ſtaid in the Country till it had corrupted one half from the Root to the Tip of it, as alſo the *Ranula* & Salivals of that ſide, as well the external as internal parts. Then being at a loſs what to do, he came up to *London* recommended to Doctor *Walter Needham* for Cure;

Cure; who, seeing his case so deplorable, advised him to consult others. He assenting to it, Doctor *Micklethwait*, Mr. *Arris*, Mr. *Hollier* and my self met Doctor *Needham*. At a Consultation we proposed to palliate the Disease. But he declared to us that he came to Town with resolution to have the Cure attempted, though he died under it. We endeavoured to dissuade him from it; but he persisted earnestly in the having it attempted: to which we at last complied, and agreed to cut off that part of his Tongue, and to cauterize the sordid Ulcer that lay on that side of his Mouth between that Jaw and his Tongue. To which purpose we presently sent for some actual Cautery, and in the presence of that Company I put into his Mouth a Raspatory, and, fixing it between the Root of his Tongue and edge of that Tonsil, pulled away the corrupt Flesh; and then with Olive-cauteries burnt that to a crust. Having, as we supposed, consumed the Cancer there, I passed a Probe with a Ligature into the Ulcer under the Tongue, and brought it out above through a Tubercle, then, pulling his Tongue forward, I cut off the cancerated part as it lay, according to its length, from the Tip to the Root of the Tongue: and after I had permitted it a while to bleed, I cauterized it. We then gave him of a *decoct. hordei, cydon.* &c. to cool his Mouth, and treated him as hath been said in the preceding Observation. In this Patient the Eschars separated, and the Ulcers digested, and that part of the Tongue near the Tonsil cicatrized; but the while a hard Swelling arose in his right Thigh, and became so painful, that he was forced to keep his Bed: the Matter fermented also in the salival Glands, and made Apostemations on the outside under the Jaws: of which together he languished and died.

These unsuccessful attempts may render us extream cruel to those who feel not the misery those poor creatures suffer with Cancers in their Mouths.

If the Cancer be but in some particular part, as the Tongue, Gum, *&c.* though the Patients have no certain hopes of being cured by Knife or Fire, yet they generally put it to trial sooner or later. How much more then shall these poor creatures, who have Cancers over-spreading their Mouth, eating and gnawing the Flesh, Nerves and Bones? who, besides the danger they are in every minute of being choaked with a fierce Catarrh, do suffer hunger and thirst; and if they can swallow Broth, Caudle or Drink, yet is it with an unsavoury tast, by reason of its passing through such sore corrupt Parts, from which putrefaction their stomach nauseates its sustenance, and their Spirits are infected with the stink, whence Fainting frequently happens; Sleep is a stranger to their eyes, their Slumber very troublesome, and Death is only their desire. At such a time as this it is not to be wondred if they try a doubtful Remedy, though painful. What I have attempted of this kind hath been at the earnest request of the Patients and their Friends, and by the authority of a Consultation of eminent Physicians and Chirurgeons. That the Cure succeeded not, must be imputed to the greatness of the Disease, and may teach others how dangerous it is to neglect the consulting the experienced Chirurgeon while the Disease is recent, and easie to be eradicated.

CHAP.

Chap. XXII.

Of Noli me tangere.

Authours in their Chapter of *Cancer* do usually mention *Noli me tangere* and *Lupus*. These two most Men esteem to be but particular names of a Cancer when it is fixed in some peculiar place: as in the Face, Nose or Lip it is called *Noli me tangere*; in the Legs and Shins, *Lupus*. Whence it is plain that our vulgar language useth the name of *Wolf* in a large sense, applying it very often to the Breasts, and indeed any other place, where the Cancer groweth highly corrosive. I shall think it more instructive to the young Chirurgeon, if I appropriate this word *Noli me tangere* to a small round acuminated Tubercle, which hath not much pain, unless it be touched or rubbed, or otherwise exasperated by Topicks. Concerning which *Rogerus* saith, that *Cancer plus corrodit uno die quàm Noli me tangere in uno mense*. But if so exasperated, it is immediately enraged, and becomes a true Cancer. Such as these are sometimes found in the Face and Lips; but do likewise happen in all other parts of the Body. I have seen them in the Arm. Particularly a person of about sixty years of age, of a healthy Constitution, hath one in the outside of his right Arm, a little above the Elbow. He weareth a Cup upon it of a light wood, with Straps fastned to it, which brace it on, and defend the Part from the pressure of his Sleeve. He sent for me one morning to see it when he was in bed, his Arm lying out covered with a light mantle. He turned up his Sleeve, took off the Cup, and shewed it me. The Tubercle was small, of a blewish colour, and looked as if it had been a *Varix*: it was without Inflammation, hardness, or change of colour in the Parts about it. He did not permit me to look long upon it: the while I did, I saw it rise into a Tumour as big as a Kernel of a Hazel-nut. Such another I saw in the Arm of a Woman of about forty years of age, of a blew colour, on the outside of her Arm: but it was not defended from the pressure of her Sleeve. I offered to undertake the Cure of them both; but they had been disswaded by most of those that had seen them. I should not have doubted of good Success, having before seen a person so diseased and cured by an Eminent Chirurgeon in his time, who by the application of an actual Cautery burned it to the Flesh, supposing it had lain no deeper; but after the separation of the Eschar it rising again, he burned it deeper, and from that time it returned no more.

Description.

Observat.

While I was attending a Noble Family in the Country, a Person of quality in the neighbourhood sent his onely Daughter of about eleven years of age to me. She was diseased with an unequal Tubercle upon her left Cheek, of the compass of a half Guinny when undisturbed; but if any thing were applied to it, it heated the whole Cheek. It was a great blemish to her Beauty, upon which very account her Parents had much endeavoured to have it cured, or at least to be disposed to such a calm temper, as it might bear a black Patch. Some weeks after the Lady her Mother brought her to *London*, and put her into the care of the late deceased Doctor *Stanly* and my self. He purged her with this: ℞ *fol. senæ* ℥ij ß. *rhabarb.* ʒj. *sem. fœnic. dulc.* ʒß. *salis tartari* ʒj. *infund. in aq. cichorei cum succo aurantior. colat.* ℥ij. *adde syr. de pomis purg.* ℥j. *Misc.* This was repeated often. *Merc. dulc. & ceruss. antimonii*

were

were also given her at distinct times, and distilled Milks, such as have been set down in the Cure of Cancers. I begun my Application with this; ℞ *litharg. auri* ʒij. *sem. cucurbit. excorticat.* ʒß. *aceti vini q. s. nutriatur in mortario in formam unguento, addendo camph. dissolut. in aq. ros.* gr. vj. This was applied spred thin upon Sarsenet: but it immediately swelled and heated all the Cheek. I then took it off, and anointed the inflamed parts about the Tubercle: but it did not agree with it. We wiped it off again, and by exposing it to the air it cooled, and returned in a day or two to its former temper. After I had tried several Medicaments unsuccessfully, a Friend gave me a black concreted Juice to work into a Paste to cover the Disease, it being all the Mother then desired from me: and this being laid upon it, adhered to it as if it had been Pitch, and seemed to agree well with it. But after four or five days it heated her Cheek, and was taken off. Upon which the Mother grew impatient, and had some thoughts of going with her Daughter into *Glouceſterſhire* to a Man there who pretends to the Cure of Cancers. Which coming to my knowledge, I made an offer to Doctor *Stanly* to undertake the Cure by extirpating that Tubercle by the actual Cautery. But he replying, that the very mention of it would fright them out of Town; I then proposed it by Caustick to the Lady-mother: which she accepted, upon a promise not to do it whilst she was in Town, nor then till I heard from her in the Country. Some while after she went into the Country, and wrote to some of her Friends to see the work done. Upon the receipt of which I met Doctor *Stanly* and them; and, having placed the Patient in a clear light, I drew a Line with Ink how far I intended to burn, and they took the compass exactly in a piece of paper, which they kept. I began with a Caustick-stone pointed, and pressed upon the middle of the Tubercle, burning deep into it; and, to quicken the work, I touched it with *ol. vitrioli* upon a Stick, and then with the Caustick-stone interchangeably, till I had consumed the Tubercle and the parts within the marked Line. The while I was thus working, I dried up the Salts which mixed with the *Ichor* with armed Probes. Having thus finished the work as I designed, to the satisfaction of the Physician and Relations, I washed out the Salts of the Caustick with Wine warmed, then divided the Eschar, and washed it again with Milk, till I had freed the Eschar and the Part from pain: then I dressed it with *unguent. basilic. cum oleo ros.* on a Pledgit, and applied an *Empl. è bolo* over all. By these Lenients the Eschar separated, and left a deep round Ulcer: which in few days I digested with *unguent. basilic. mag. & Merc. præcip.* and incarned and cicatrized with *unguent. tutiæ*, &c. but within ten days after it broke out again. We repeated Purging with *calomel. Bezoard. miner.* &c. and healed it up with a firm *Cicatrix* by the aforesaid method, adding a few drops of *tinct. vitrioli dulc. in aqua rubi.* From which time it hath continued well, she not having worn any Mouch upon it of late years. I have now under cure one of this kind; but, it not being perfected, I shall insert it in the Treatise of *Strumæ*.

Chap. XXIII.

Of Wateriſh Tumours.

Wateriſh or *Hydropical* Tumours are the effects of an extravasated *Serum*, which according to the place on which it lights doth denominate the Disease.

If it fall inwardly into the Cavities of the Belly, it is *Hydrops ascites*; of the *Thorax*, *Hydrops pectoris*; of the Scull, *Hydrocephalus*: which name it also

retains

retains if it affect the outward parts of the Head. When it is lodged between the Skin and the Fleſh, or in the Interſtices of the Muſcles, it is *Anaſarca:* in the *Scrotum*, *Hydrocele*, or *Hernia aquoſa*, &c.

Differences. Wateriſh Tumours that are external differ from the phlegmatick by their ſhining and the manner of their pitting. Hydropical Swellings, if they be pure, do gliſter and are pellucid, they take impreſſion eaſily, and do as ſoon loſe it. *Oedemata* receive the impreſſion eaſily alſo, but they keep it longer. The tranſparency in the ſurface or change from the natural colour in the Skin is leſs than in the other. But theſe Humours are very apt to mix both in the *Anaſarca* and other Swellings; which where they do, the Symptoms are confounded.

Aſcites differs from *Tympanites* by its weight, and the ſwagging of the water in the Belly; whereas the Tumour in a *Tympanites* is more light, equal, hard, and, ſay Authours, ſounds like a Drum.

Cauſes. *Cauſes* of Wateriſh Tumours are whatever may either increaſe the *Serum* of the Bloud beyond its proportion, or reſtrain it in any part of the Body preternaturally, ſo that, wanting its natural courſe, it ſtagnates in ſome one or more places. Of the former ſort are ill Digeſtion in the Stomach; defect of Sanguification, which is frequent in intemperate perſons; alſo great Hæmorrhagies, where the Bloud, being weakened by much diminution of its quantity, is not able to digeſt the Aliments aſſumed, but lets them run into *Serum*, from which Cauſe alone ſeveral wateriſh Tumours ariſe; ſo alſo any defect in the Ferments of the *Viſcera*, as when the Kidneys do not ſeparate the *Serum* from the Bloud, or the conglobate Glands do not their office; likewiſe too great acrimony in the Bloud, which, though hot in it ſelf, yet melts down the Bloud into a thin *Serum*, as in hot Catarrhs. Of the latter ſort are, 1. a check of tranſpiration through the Pores of the Skin, which keeps in a greater part of the thinner *Serum*, and forceth it to ſtop in the body: 2. retention of Urine: 3. the forming of ſome *Cyſtis* in which it is contained: 4. its extravaſation in any part of the body, external or internal.

Wateriſh Tumours are, as we have reckoned, internal, or external.

Signs. The internal ones are deſcribed in Phyſick-books; and their *Signs* ſhall be given particularly by me as I have occaſion.

The external, if they be pure indeed and very much external, do by a viſible reſplendency betray themſelves to the eye; thoſe eſpecially that lie near the *Cuticula* and *Cutis* making a very thin pellucid Tumour. Thoſe that lie deeper under the Skin do ſhine leſs: yet in ſome of them, if in a dark room you ſhade them, as Women do an Egge with their hands, and hold a Candle to the other ſide, you will find at leaſt a faint tranſparency. Thoſe that lie yet deeper, or are contained in a *Cyſtis*, do not diſcolour the Skin at all, nor cauſe any conſiderable pain: but if the Swelling be large, you may by ſhaking it perceive an undulation.

Prognoſtick. Watery Tumours as ſuch portend no danger to the life of the Patient, unleſs the *Viſcera* be obſtructed or otherwiſe tainted. If ſuch Obſtructions or Corruptions happen, the meaſure of the danger is to be taken from the degree of the Corruption. Thoſe inward Tumours are more dangerous than the outward; and the more noble the Part affected, the more important the danger.

Cure. In the *Cure* of theſe Tumours there are four Intentions required.

The firſt conſiſts in a regulation of Diet and manner of living: the ſecond, in evacuation of thoſe ſerous Humours by Stool, Urine, or Tranſpiration: the third, in rectifying the Concoction, and reſtoring the *Viſcera* to their natural ſtate: the fourth, concerning the Tumour it ſelf, is performed by Diſcutients and Exſiccants, or by Apertion.

1. The Diet ought to be with great moderation, exceſs in eating or drinking

king being prejudicial to their Cure. As to the quality of it, Phyſicians generally preſcribe it drying and attenuating, ſuch as hath been propoſed in the Chapter of *Oedema*; and after that manner they ought to regulate their way of living: yet it is not unfrequent to ſee theſe Tumours ariſe from a hot Cauſe, in which caſe cooling Diets are requiſite.

2. The ſecond Intention is uſually performed by Purging with ſuch things as are preſcribed in Oedematous caſes. Only here there ought to be a more particular regard had to the *Hydragoga*, as *elaterium*, *camboya*, *ſambucus*, *ebulus*, *rad. bryoniæ*, *ſyr. de ſpina cervina*, &c. If the Cauſe be hot, Bleeding and *Barnet* Waters may be neceſſary, of which you may find ſome Inſtances.

3. The third Intention, of reſtoring or rectifying the *Viſcera*, ought to be the work of the Phyſician.

4. The fourth Intention is, of removing the conjunct matter by drying and diſcutient Medicaments; for which all thoſe ſet down in Oedematous and Flatulent Tumours are ſuitable. ℞ *ſummitat. abrotoni*, *abſinth. origani*, *calaminth. majoranæ*, *an.* M. ij. *flor. ſambuci*, *chamæm. anthos*, *roſ. rub. an.* M. j. *baccar. lauri*, *juniperi*, *an.* ℥ ij. *coquantur in ſ. q. aquæ font.* to which may be added Wine, Vinegar, Salt, Sulphur, or Alume. Or you may make the Decoction in the common Lixivie, if the Tumour require it. You may alſo embrocate with ſuch like; ℞ *ſalis nitri* ʒx. *piperis albi* ʒvj. *euphorb.* ʒ ij. *ol. laurin.* ℥vj. *Miſc.* and apply this over the Part affected; ℞ *ſem. aniſi*, *cumini*, *bacc. myrtil. lauri*, *an.* ʒß. *ſucci ebuli* ℥iv. *ol. rutac. & ceræ q. ſ. fiat Ceratum.* If by application of theſe or the like Medicaments the Cure ſucceed not, it may be reaſonable to make Apertion, and give vent to the Water, & proceed in the Cure as ſhall be ſhewed in the following Obſervations. Where the *Hydrops* hath affected the Breaſt, I have not ſeen any operation attempted by letting out the Water, the Diſeaſe it ſelf being rarely diſcovered till after the death of the Patient. In ſome ſuch I have taken out about a gallon. Nor is there often found better ſucceſs where the Water affects the Belly, as in the *Aſcites*: it being for the moſt part the product of long chronick Diſeaſes, which either took their original from or ended in Obſtructions of the *Viſcera*; in which caſes the Cure uſually depends upon the Phyſician; the beſt aſſiſtence of the Chirurgeon being that of Bandage, which, if applied even to the whole Belly by a ſtrong Dimitee or *Holland* Bracer, made to encompaſs the *Abdomen*, and tied or laced behind, may conduce much to the prevention of a ſudden increaſe of the Swelling.

The like or greater ſucceſs we may hope for in Anaſarcous Swellings, where the Legs, Arms, Hands, *&c.* are affected, to which a ſtreight Stocking, Sleeve, *&c.* being accommodated doth uſually repreſs the Humour, and diſpoſe it to be carried off another way by Medicine.

Where the *Aſcites* follows *Hæmorrhagiæ*, Fever, or any acute Diſeaſe, it admits more often of Cure: but thoſe of our Profeſſion are rarely conſulted while there is any hopes thereof by internal Remedies, which is ſo long as the Patient hath ſtrength to bear them. At laſt, when the *Viſcera* are tainted, the evacuation of the Water haſtens their deaths, and the Operation is ſcandalized: whereas if the *Paracenteſis* were made in time, better ſucceſs might be expected.

The way of making a *Paracenteſis* or Tapping hath been variouſly ſet down, according to the ſeveral fancies of Chirurgeons. Some have made the Apertion in the Navel by Bodkin, Needle, *&c.* others three fingers below it on either Side, chuſing that on which the Patient did leaſt lie; for the Orifice ought to lie uppermoſt, to prevent too great an effuſion. Thoſe that open below the Navel have likewiſe deviſed ſeveral ways. Some take up the Skin, and perforate that firſt; then make a Perforation in the *Peritonæum*. A method not practi-

cable where the Belly is very hard and ſtiff with much Fat between the Skin and Muſcles. Therefore it is that we generally ſtrike through all at once. The worſt way is by Cauſtick, and Inciſion after that.

But the downright Puncture, being the beſt of Cures, is to be ſo managed as that the *Serum* may not fly out all at once, but be retained according to the deſire of the Chirurgeon; nothing being ſo pernicious to the Patient as great Evacuations, though of an excrementitious Humour. Hence it is that much Art hath been uſed in this affair as to deſignation of quantity and contrivance of Inſtrument. *Barbett* hath lately publiſhed the uſe of an hollow Needle, which, being thruſt in, will let out what quantity you pleaſe, but being pulled out leaves little or no paſſage in the Skin. The repeated intruſion of this into the ſame or into freſh holes (ſay he and *Sylvius*) will evacuate Water at your pleaſure. Truly, the whilſt the Belly is diſtended with abundance of Water, it may ſucceed well: but they themſelves dare not pretend farther than the Evacuation of half the Liquor, for by that time you will be in danger of wounding the Inteſtines. Several Experiments I have made of that Inſtrument, and one lately, rather to ſatisfie the Patient and his Relations that the Swelling was an *Aſcites*, than that we could propoſe any Cure by it. I made the Apertion in the preſence of Mr. *Hollier:* we diſcharged about a pint of Water, and part of that by a Catheter; for, feeling ſome oppoſition in the cavity within the *Abdomen* which obſtructed the flowing of the Water, I pulled the pointed *Cannula* out: and it was well I did, for afterwards in opening the dead body I found the Inteſtines floating above the Water, though there were above two gallons in the Belly. Upon which Obſervations I do conclude it a very unfit Inſtrument to diſcharge a Dropſie: beſides, our people will not admit of ſo many Openings as would be neceſſary to empty an Hydropical Belly. This very perſon, as earneſt as he was at firſt for the Operation, choſe rather to die with the Water in his Belly than ſuffer a ſecond Apertion.

I therefore do conclude the good old way of a *Cannula* made taper-wiſe with holes in the ſide, whoſe deſcription you may find in *Pareus*, to be the beſt; which being conveyed through a hole made by puncture may be kept in by Bandage till the Water be evacuated, the hole of it being ſtopped by a Screw or otherwiſe, as you will find in the aforeſaid Author. I ſhall now give you ſome Obſervations of this Work, though it be for the moſt part unſucceſsful: as indeed what can be expected from rotten *Viſcera?*

1. Obſervat. of *Aſcites.* A Woman near fifty years of age, of a groſs body and ſtrong Conſtitution, laboured of an *Aſcites* a long time: after much Phyſick ineffectually taken, the Water burſt its way through the Skin by a ſmall Opening on her right Side, near the place where we uſually make the *Paracenteſis*; and after ſome days, the Aperture wearing larger, the Water flowed more abundantly. I was fetched, and ſtopt up the Orifice with a Tent of Lint, applying a Pitch-plaiſter, and over that another of Yeaſt and Wheat-flower, with Compreſs and Bandage. Then I adviſed her to lie on the contrary Side, by which that part was kept dry. The fourth day I opened it, and gave vent by a *Cannula* to three pints of Water; then bound it up again. As the Belly emptied, the Opening contracted: Therefore I put in a *Cannula*, retaining it in with Compreſs and Bracer, and thereby diſcharged the Water at pleaſure, and afterwards left it to her own and her Servants ordering. I viſited her ſome while after; and, finding moſt part of the Water diſcharged, I took out the *Cannula*, and permitted it to cure. The Water ſeeped out ſometime upon riſing or lying on that Side; but ſhe was a ſtrong Woman, and recovered.

2. Obſervat. of *Aſcites.* A young Man of about eighteen years of age fell from a Fever into a Quartane

tane Ague, which held him long, and ended in an *Aſcites*: his Belly ſwelled exceedingly, & he became extenuated. While he languiſhed in this deplorable condition, one undertook the Cure of him, by letting out the Water with a Thorn thruſt into his Navel, (though it were not at all ſwelled up.) The Water was let out gradually, and a ſticking Plaiſter only applied over it. Thus in a month's ſpace it was evacuated, and the Belly contracted proportionably. During this Evacuation he took opening Broths and Apozems. After the Water was diſcharged, and the Puncture cured, he continued extreamly emaciated, and the Skin of his body and limbs was withered; yet he was ordered to be let bloud about ſix ounces: at which time he was ſo very a Skeleton, and his Skin hung ſo looſe, that I doubted how I could hold it over the Vein to open it. Yet after this I ſaw him fat, and perfectly cured.

3. Obſervat. of *Aſcites.*

A Gentlewoman of about thirty eight years old laboured of an *Aſcites* with Anaſarcous Swellings on her Belly, Thighs & Legs; and, having taken much Phyſick unſucceſsfully in the Town, was removed to her houſe in the Country to die: but after ſome while being tired with the weight and ſtretching pain of her Belly, ſhe ſent for me to give vent to the Water. I went provided for the work, and found the Patient reſolved to undergo the Opening. Other Symptoms to encourage me I had none. The next morning, ſhe having prepared her ſelf, and being placed on that ſide ſhe could beſt lie upon during the Evacuation, her Bracer being well fitted, I made the Perforation according to cuſtom three fingers below the Navel on the upper ſide. The Water ſpurted out forcibly whilſt I paſſed in my taper-pointed *Cannula*, which fitting exactly, I let out about three pints of Water, then apply'd an *Emplaſtr. ad herniam* over it, with a Stupe wrung out of a carminative Decoction and Bandage. She ſeemed ſomewhat relieved at the preſent, but reſted ill that night, and was much indiſpoſed in the morning, yet would have more Water let out. I diſcharged two quarts of Water, and dreſſed it as before.

After I had continued there three or four days, and ſhewed the Servants the manner of letting out the Water and dreſſing, I returned to *London*. After a few days, going back, and finding her Belly very much ſunk, and the Water not over-ready to flow, I took out the *Cannula*, applied a Pledgit of *unguent. baſilicon*, and an *Emplaſtr. ad herniam* over it, with a warm Stupe and Bracer as before. I left her weak and not like to recover; and indeed ſhe died a few day after.

4. Obſervat. of *Anaſarca* in the Legs, &c.

A Gentlewoman of about thirty years of age, big with Child, was much diſeaſed with Anaſarcous Swellings in her Legs and Feet. Sir *Fr. Pr.* was ſent for; who, ſeeing her in ſuch a condition, and unfit to take Phyſick, deſired my Opinion concerning them. I ſaw the Swellings pale and ſhining, yielding to the impreſſion of my fingers, and returning ſlowly. She was very uneaſie in her bed, and not in a condition to ſit up. I propoſed Fomenting with good diſcutient and exſiccant Medicaments, to diſpoſe them for Bandage, and then to put on laced Stockings and Trouzes. After he had a while conſidered of it, he wiſhed me to write a form of the Fomentation; which I did thus: ℞ *ſummitat. abſinthii, majoranæ, origani, roriſmarin. an.* M. iiij. *flor. chamæmeli, ſambuci, roſ. rub. an.* M. ij. *baccar. lauri, juniperi, an.* ℥iv. *ſulph. vivi, aluminis rup. an.* ℔ß. *ſalis com.* M. iij. *coq. in ſ. q. aquæ pro uſu.* He gave way to the uſe of it and the Bandage. I began the next morning with the Fomentation, cauſing her Legs to be bathed, then rowled them up from the Feet above the Knees equally ſtreight. After I had repeated this method three or four days, and diſpoſed her Legs by Bandage for the laced Stockings, I ſaw them laced on with Knee-pieces and Trouzes: theſe were daily ſtreightned to ſuch proportion as the Patient could eaſily bear. By the wearing of theſe ſhe recovered

the uſe of her Legs, to the great advantage of her health. She went her full time, and was delivered of a healthful Child, which is yet alive.

5. Obſervat. of *Anaſarca* of the Legs.

A Gentleman having long laboured under a complication of Diſeaſes, particularly a Dropſie, ſent for me. I found his Body much extenuated, his Legs Anaſarcous, and his Back and Hips excoriated with lying in bed. I propoſed to him the uſe of a Fomentation and equal Bandage, *viz.* a pair of laced Stockings. After ſome reaſoning with me about the uſe of them, he complied, and I cauſed a pair to be made, and laced them on. They were eaſie, and did all I deſigned by them. He was able to walk to his Cloſet, and take the air in his Coach, and was well pleaſed with them. But afterwards, being informed by ſome body of great inconveniences that might happen to him from the wearing of them, he cauſed them to be pulled off; upon which his Legs ſwelled again, and he was confined to his bed, whereby his Hips and Back galled: alſo by reaſon of the great increaſe of thoſe wateriſh Swellings the native heat was overcome, and a preternatural one ariſing inflamed and bliſtered them. I was fetched, and by Fomentations, *&c.* got off the Mortification, and in ſix weeks healed the Ulcer and Ulcerations. I made him a Fontanel by Inciſion in his right Leg, and put him on the laced Stockings again, by the uſe of which he recovered.

6. Obſervat. of a watery Tumour in the Back.

A young Woman of about twenty five years of age, of a healthful Conſtitution, came to me out of the Country, ſuppoſed to have the *King's Evil.* Upon enquiry I found none of that *Evil*, but a large Tumour lying upon the Muſcles of the Back: the Skin of the Tumour was thick, without inflammation or diſcolouring.

I was then in queſt of windy Tumours, and thought this might be one, having Symptoms not unlike it, the Sound excepted. I had a great deſire to ſee what it was which made that bulk, and offered her the Cure of it *gratis*; which ſhe gladly accepting, I ordered my Servants to make ready Aſtringents and Bandage. Then I made an Apertion into it with a Knife, upon which a Water forced out: we received it in a Chamber-pot. Whilſt it was diſcharging, I ſlit up the Tumour, and gave way to the Dregs, which were like Honey, but not contained in a *Cyſtis*. I cut off as much of the Skin as was ſuperfluent, and brought the reſt together, dreſſing it up with the common Digeſtive *ex Terebinth.* &c. with a reſtrictive Emplaſter, Compreſs, and Bandage. Being thus dreſſed ſhe walked with her She-friend, more briskly than ſhe came, to her lodging in *Shoe-lane*; from whence ſhe came to my houſe the third day after, to be dreſſed, and ſo daily till the Wound was cured; which healed by Agglutination in leſs than three weeks.

Hydrocele.

OF wateriſh Tumours *Hydrocele* is one very remarkable Species, which ſubdivides it ſelf into many others.

Definition.

It may be generally defined, a wateriſh Swelling of the *Scrotum.*

Differences.

This may be either part of another more general Tumour, or elſe an original Diſeaſe of that place. When it is part of another Tumour, the Body is Hydropical, *viz.* either Anaſarcous or Aſcitical: in both which caſes it is frequent to ſee the Cod ſwelled up after the manner of an *Anaſarca.* And indeed, when in Aſcitical caſes we find a Swelling of the Teſticle, there is for the moſt part an *Anaſarca* of the lower parts of the Belly joyned with it. When it is an original Tumour of the Part, it either lieth without the *Tunica vaginalis*, affecting the whole *Scrotum*; or elſe is contained within the ſaid Tunicle, or at leaſt in a *Cyſtis* of its own: in which caſe you will find one ſide ſwelled whilſt the other remains in its natural ſtate; or if both Teſticles are concerned, the Tumours are diſtinct.

The

The *Cauſes* of *Hydrocele* are the ſame with thoſe of a Dropſie, at leaſt when it is part of a Dropſie. But when it cometh alone, it is generated as all other wateriſh Tumours are, *viz.* by a ſeparation of *Serum* out of the Arteries, which never returneth into the Veins, but lodgeth in the Skin or other parts of the Body. This Extravaſation may be cauſed from ſome Bruiſe by Blow, Fall, *&c.* Cauſes.

Signs of an *Hydrocele* may be taken from the diſtemper of them. *Viz.* Signs.

1. The Anaſarcous *Hydrocele* may be known by the ſplendour, ſoftneſs and thickneſs of the *Scrotum.* It taketh impreſſion from the fingers eaſily, and may be wrought like ſoft Wax. The Prepuce is uſually ſwelled, if it attend the Dropſie of that name.

2. The ſimple *Hernia aquoſa*, as it affects the whole *Scrotum*, fills it like a Bladder, and diſcovers it ſelf by its ſhining.

3. When the *Hydrocele* lieth within the *Tunica vaginalis*, between it and the Teſticles, or in a peculiar *Cyſtis*, the *Scrotum* is proportionably ſtretched, and ſomewhat wrinkled; and indeed at firſt ſight it is not unlike an *Hernia inteſtinalis* or *zirbalis*: but you may diſtinguiſh them by preſſing with your fingers upon the Production, which when you do, bid the Patient cough; if nothing preſs upon your hand like wind, it is an *Hydrocele*. If the Water be lodged in the *Tunica vaginalis* of both Teſticles, the Swelling appears double.

This Diſeaſe is more or leſs dangerous according as it is complicated. That which is joyned with a Dropſie cannot be cured, unleſs that be firſt cured: yet it ſometimes ſerves to diſcharge anaſarcous Swellings in the Parts lying above it. Thoſe which ariſe from an external Cauſe are more eaſily cured. If the Habit of body be tolerably good, the *Hydrocele* may be cured; and if it be bad, the Water may be let out as often as it fills, without danger. Prognoſtick.

In the *Cure* of theſe Tumours there is required a regulation in Diet and manner of living, as hath been ſet down in the preceding Diſcourſe of *Wateriſh Tumours* in general: only here they are to be proportioned according to the greatneſs of the Malady and the Accidents that attend them. They alſo require to be treated with ſuch Diſcutients and Exſiccants as have been there propoſed, and you muſt retain your Applications cloſe to the Part to which they are applied. A Bag-truſs is neceſſary, it ſerving alſo to ſuſtain the Part, leſt by the weight of the Humour the Tumour be increaſed: alſo after the diſcharge of the Water it furthers the corrugation of the *Scrotum*. Cure.

While the Swellings are ſmall, they may haply yield to Diſcutients. An accidental Bruiſe, by ſtirring up an Inflammation, hath ſometime diſpoſed them to Diſcuſſion. If they tend to Suppuration, further it by Suppuratives, as in a *Phlegmon* hath been ſhewed, and treat them as ſuch. But if the Tumour have any quantity of Water in it, your ſpeedieſt way of Cure is by giving vent. If it be an *Anaſarca* that poſſeſſeth the whole *Scrotum*, the way to diſcharge it is either by Scarification, or by a Seton.

Scarification is proper when only the *Scrotum* is Anaſarcous. If it be made by puncture with a Lancet, the Water will diſcharge in few hours, and the Wounds agglutinate ſoon after without other Application than a warm Stupe. An Inſtance whereof you may ſee in the Obſervations of *Oedema*.

If there be an *Anarſaca* of the Belly, the Seton is moſt proper, in conſideration of the time which is required for ſuch an Evacuation. It ought to be made tranſverſe the *Scrotum* in the depending part. It is to be kept open till the Seroſity be diſcharged; and the while you are to preſerve the native heat of the Part by the application of warm Stupes wrung out of Wine wherein have been boiled *ſummitat. abſinthii, majoranæ, flor. chamæm. roſ. rub. balauſt. bacc. myrtill. nuc. cupreſſ.* &c. And take care leſt the *Scrotum* excoriate from the ſharpneſs

ſharpneſs of the Humour and inflame: for in Hydropical bodies it is apt to gangrene. If you apprehend ſuch miſchief, pull out the Seton.

In the Opening the other Species of *Hydrocele*, you are to conſider the quantity of Water, and the place it is lodged in. If it have not a pint of Water in it, forbear opening it till it be bigger, leſt you hurt the Teſticle: beſides, it is not worth the while. But if it be a Child that labours of it, you may open it though there be ſcarce half a pint of Water. In order to the Opening them, you are to place the Patient in a clear light: then with the one hand to preſs upon the Production, that the Tumour may be more tenſe: and if the *Hydrocele* be in a Man, your Servant ought to preſs with his hand upon the other ſide, that the *Scrotum* may be the more ſteady. You are to make the Puncture in the depending Part, and avoid the cutting of the greater Veins lying upon the *Scrotum*, leſt thereby the Water be made bloudy, and you be thought to have hurt ſome Part within. You are to make the Apertion big enough to receive a ſmall *Cannula*, which you are immediately to put in, and keep it there till you have drawn out all the Water. That done, apply a Pledgit of *unguent. baſilicon*, and an Emplaſter to retain it on, with a Flanel Stupe wrung out of an aſtringent Decoction, and put ſuch a Bag-truſs on as may keep your Dreſſings cloſe. By this method you will in two or three days find the Puncture cured, and the *Scrotum* contracted. Yet it may be reaſonable to apply an *Emplaſtr. Cæſaris*, or ſome other aſtringent Emplaſter, over the *Scrotum*, and to put on a leſs Truſs, which the Patient may wear for more ſecurity. For they are apt to fill again with Water once in a year or two, if the Habit of body abound with ſerous Humours.

If the Water be lodged in a *Cyſtis*, or within the proper Coats of the Teſticle or Teſticles, they require accordingly to be opened diſtinctly. And in theſe *Hydrocele*'s you are to be careful to paſs in your *Cannula*, and keep it in till the laſt drop of Water be diſcharged: for if by any accident it ſlip out, you will ſcarce get it in again; the inner Tunicle hanging looſe, the holes may not anſwer each other; nor is the Tumour capable of being opened ſo well again as at firſt: and if you leave any Water behind, the Operation will be thought ill done. The Water diſcharged, you are to proceed in the Cure as above ſaid. What hath been hitherto delivered of theſe *Hydrocele*'s doth only concern the palliative Cure.

If you purpoſe the perfect Cure, you ought then to make the Apertion large on one ſide of the *Scrotum* reaching towards the Production, in ſuch manner as it may lie according to the length of the Teſticle, that you may open it after the Water is diſcharged, and thereby the better apply your Medicaments to it in caſe it be affected. In theſe Operations the Patient ſhould be of a tolerable good Habit of body, and not in his declining age: for whether they be made by Inciſion or Cauſtick, they are generally ſubject to Inflammation, Colick and Fever, till Suppuration be made. In which caſe Bleeding and Clyſters are neceſſary, and outwardly Lenients and Anodynes are to be applied, alſo good Fomentations to keep up the natural heat: of which you will find ſome Inſtances amongſt the following Obſervations.

1. Obſervat. of *Hernia aquoſa* with an *Anaſarca* and *Aſcites*.

A Boy of about ſix or ſeven years old was brought to me labouring of an *Aſcites*, with an *Hernia aquoſa in Scroto*, and Anaſarcous Swellings poſſeſſing the outſide of the *Scrotum* and Prepuce. I made an Apertion on the left ſide of the *Scrotum* in a depending Part, and, paſſing in a *Cannula*, diſcharged near a pint of Water; then fomented it with warm Stupes wrung out of red Wine. While I was fomenting it, ſuſpecting the Anaſarcous Humour would ſoon fill up the *Scrotum* again, if the Apertion were not kept open, I therefore without delay

delay thruſt a Seton-needle with a ſmall twiſt of Silk through the Aperture before made, and paſſed it out tranſverſe the *Scrotum*, about an inch diſtant from the firſt opening; then cut off the Seton from the Needle, and tied the ends together, faſtening them with an Emplaſter above upon the *Scrotum*, and truſſed it cloſe with a warm Flanel Stupe, covering alſo the *Penis*, and diſmiſſed them with directions to ſtupe it at leaſt thrice a day with a *Decoct. abſinth. flor. roſ. rub.* &c. as it is propoſed in the method of Cure. If in this caſe the Stupes be not often ſhifted, the ſerous Humour, which ſo continually drops into it, will excoriate the *Scrotum*, and ſtir up a painful Inflammation. Some few days after I viſited the Patient, and ſaw the Swelling in the Prepuce and *Scrotum* diſcuſſed, the Seton having well diſcharged its part. I cut out the Seton, and dreſſed the Ulcers with *unguent. tutiæ*, by which they healed; and by the continued uſe of the Fomentation in a few days the *Scrotum* contracted.

2. Obſervat. of *Hernia aquoſa* with *Anaſarca.*

A Gentleman of about ſixty years old came to *London* diſeaſed with a *Hernia aquoſa*. The lower parts of his Belly and upper parts of his Thighs were Anaſarcous: the Prepuce and *Scrotum* were not free from it. Sir *Fr. Pr.* being his Phyſician adviſed the opening of the Tumour, and was preſent the next day: where, having all things ready, I placed the Patient in a Chair to the light, the Phyſician laying his hand upon one ſide of the *Scrotum*, while mine was on the other ſide. I made a Puncture in a declining Part, then paſſed in a *Cannula*, and let out about three pints of Water in a Baſon. It was much of the colour of Urine in healthful people. The Water diſcharged, I pulled out the *Cannula*, and applied a warm Stupe, and truſſed it up cloſe. In the ſpace of two or three days the *Anaſarca* diſcuſſed, and the *Scrotum* contracted and cured. I applied an *Emplaſtr. Cæſaris* over the *Scrotum*, and fitted him with a Truſs accordingly. Two years after I opened this Tumour again.

3. Obſervat. of an *Aſcites* with Anaſarcous Swellings in *Scroto*, &c.

A Man of about forty years of age, of a ſtrong Conſtitution and ſanguine Complexion, being of late years Aſthmatick, was about two months ſince ſwelled with an *Aſcites* and an *Anaſarca* of his Belly, *Scrotum*, Thighs and Legs. Dr. *Denton* and Dr. *Brook* were his Phyſicians, and conſulted me in the Chirurgery, eſpecially in that of the *Scrotum*, which was very much diſtended (as we ſuppoſed) with Water, the external parts being (as I have ſaid) Anaſarcous.

I propoſed Scarification in order to the preſent diſcharge of the *Anaſarca*: but, in conſideration of the neceſſity that appeared of continuing a vent to the ſerous Humours, which would moſt certainly affect the *Scrotum* whilſt any thing of the *Hydrops* remained in the parts above, we reſolved upon the uſe of a Seton. To which purpoſe the Patient was ſeated upon the ſide of his Bed, and a Baſon placed under the *Scrotum*. I raiſed up the Anaſarcous Skin, and, whilſt Dr. *Brook* held part of it, paſſed through the Needle with a twiſted Silk. Immediately upon the Apertion there diſcharged a bloudy *Serum*, (as it ſeemed to us by the candle-light,) which we permitted to flow to the quantity of at leaſt a pint and a half: during which the colour not changing, we ſtept to the window with the Baſon, and ſaw it a pure florid bloud; ſo alſo was that which flowed the while into a Porrenger. Upon ſight whereof I pull'd out the Seton, and placed a Servant's fingers upon the two Apertions, till I haſtily made Dreſſings ready of *farin. tritic. cum albumine ovor.* ſpred upon a couple of Pledgits and upon linen cloath in the form of a Plaiſter, which I applied upon that part of the *Scrotum* with Compreſs and Bandage, whereby the bleeding was ſtopt. We did not perceive that he was the leaſt diſcompoſed by the Evacuation. The ſecond day after we met again, and ſaw the Patient walking in his Chamber marvellouſly relieved both in his breath and ſtrength. He formerly took his reſt by leaning upon his Knees & Elbows; but that night he ſlept lying down in his Bed, and had diſcharged in our abſence

ſence above a gallon of Urine well coloured,and made more than a quart during our being in the houſe. In the taking off Dreſſings the Apertions were ſeemingly healed,and had not bled one drop after the application of thoſe Emplaſters. We fomented the *Scrotum*,and truſſed it up. His Phyſicians preſcribed antiſcorbutical Juices,cordial Juleps,*&c.* The ſecond day after we met again, and,ſeeing the *Scrotum* big, made Scarification by puncture of a Lancet. The bloud trickled down apace ; but after a while it ſtopt,& a *Serum* flowed forth. A warm Stupe was applied,and renewed often, and continued the moſt part of that night ; during which the *Serum* was plentifully diſcharged, and he urined well. At our next meeting, which was within two or three days, we found our Cure ſucceed well ; but the *Scrotum* was big, and likely to be ſo whilſt there remained any Water in the *Abdomen* or Parts about. Upon which conſideration we were inclined to make a Seton again : but,ſuſpecting a new effuſion of bloud, we contented our ſelves at that time in making an Apertion with that Spear-pointed *Cannula* deſcribed by *Barbett*. It bled at firſt opening about two ounces, then gleeted a ſerous Humour. We dreſſed it as before, and thereby the *Serum* was diſcharged for the ſpace of three or four days ; during which the Patient removed from his Lodging at *Lime-houſe* into the Town,nearer his Phyſicians. Then we again pierced the *Scrotum* with a round Needle and twiſted Silk,whereby the bleeding was reſtrained,and the Seroſity diſcharged : but the *Scrotum* from that time began to indurate,and thereby ſtreightned the Seton,and ſtopt the Water in its paſſage. Upon ſight whereof we fomented the *Scrotum* with Emollients and Diſcutients,*viz. ex foliis & radic. althææ, bryoniæ, cucumeris ſylveſt. ſummit. at. ebuli, flor. ſambuci, ſem. fænugræci*, &c. and of the *Fæces* made a Cataplaſm,with an addition of *farin. hord. lentium, axung. porcin.* &c. During theſe applications the Patient was purged with *Hydragoga* once in two days,whereby great quantities of wateriſh Humours were each time evacuated. The Juices were alſo repeated thoſe days he intermitted Purging. Thus the Patient was daily relieved,the hardneſs *in Scroto* reſolving as the Seton digeſted, and indeed the *Scrotum* was well-nigh reſtored to its natural bigneſs. We then deſigned Scarification of his Legs,to evacuate that *Serum* : but he not permitting it,we fomented them with Diſcutients,and embrocating afterwards *cum oleo olivar. aceto & ſale*,we rowled them from the Toes upwards;and having that way diſpoſed the Parts for ſtreight Stockings, we laced them on,and fitted laced Trouzes to the Thighs. During which the Patient was frequently purged to much advantage ; yet the ſwelled Thighs and Legs did not yield to our Bandage, but continued hard and painful. He was alſo ſtreightned in breathing, and often delirous, and too much debilitated to bear ſo frequent Purging as was requiſite to evacuate the daily increaſe of Water. Upon which conſideration we ſcarified his Legs and Feet, and by the application of Cupping-glaſſes diſcharged a quantity of bloudy *Serum* : from which time the evacuation of *Serum* was continued by the application of warm Stupes and Emplaſters. About ten days after, having notice that his Legs and Feet were exceeding painful, I made him a viſit,and found him upon his Feet : his Stockings being pull'd off, I ſaw his Legs inflamed, and in one place livid, and the very Toes inflamed, alſo bliſtered, and in ſome parts livid. I ſcarified them, and fomented them with *decoct. ſummit. abſinth. flor. roſ. balauſt. in vino rubro* ; then dreſſed the Scarification with *unguent. baſilic.* hot, and applied *cerat. Galeni* with moderate expulſive Bandage from the Feet to the Knees ; then put him into Bed, placing his Legs upon Pillows, to prevent the deſcent of Humours. The next day the Patient was let bloud about ten ounces, from which time he began again to urine plentifully, and thereby was freed of the *Delirium* and difficulty of breathing, the Inflammations of his Legs and Feet went off, and thoſe Ulcerations healed :

yet

yet there afterwards appeared a ſmall collection of Matter upon one of his Legs; which being diſcharged, and diſpoſed to cure, the Patient was again purged, and is at this preſent in a hopeful way of Recovery, his Belly, Thighs and Legs being ſoft, and in a manner reſtored to their natural ſtate, and his Phyſicians are ſending him into the freſh Air to perfect his health.

4. Obſervat. of *Hydrocele.* A Gentleman of about twenty ſeven years of age came to *London* diſeaſed with a Swelling *in Scroto.* Dr. *Walter Needham* was his Phyſician. It was ſoft, and poſſeſt the Tunicles of the right Teſticle, making a Swelling only in that Teſticle. It did not ſhine, as the ſimple *Hernia aquoſa* is wont to do. We made Compreſſion upon the Production of that Teſticle, and concluded the Tumour water, and lodged within the proper Coats of that Teſticle, the other lying unconcerned. We made an Apertion in the declining Part, and, paſſing in a *Cannula*, diſcharged about a quart of Water, all that was in the *Scrotum*: then pulled out the *Cannula*, and applied a Pledgit of *unguent. baſilicon*, and an Emplaſter to retain it on, with a hot Stupe wrung out of Wine, and truſſed it up cloſe. By which method of dreſſing the Puncture cured, the *Scrotum* contracted, and he returned cured.

5. Obſervat. of *Hydrocele.* A perſon aged fifty eight years, having been long troubled with a large Tumour *in Scroto*, deſired my advice. The Production of the *Peritonæum* on the right ſide was much dilated. I preſt upon it with my hand, and upon his Coughing felt nothing of Wind. That Teſticle was lodged within the Tumour, ſo as I could not feel it. The Tumour was ſoft and without pain. I concluded the Diſeaſe to be Water lodged within the *Tunica vaginalis*, or ſome particular *Cyſtis* encompaſſing the Teſticle; the other Teſticle and Production being unconcerned, and the *Scrotum* thick, as is uſual in ſuch caſes.

I propoſed the letting out of the Water; but he deſired time to conſider of it. After two or three days I was ſent for again, where I met Sir *Charles Scarburgh*, Phyſician to his Royal Highneſs the Duke of *York*, and one of his MAJESTIE's Phyſicians, and Doctor *Denton*. We together conſidered the Tumour; and they, being ſatisfied that it was Water, encouraged the Patient to admit of the Opening of it. I, having all things ready, made a Puncture in a declining Part, and, paſſing in a *Cannula*, diſcharged near two quarts of Water, dreſſing it up as above ſaid. I opened this Tumour afterwards twice in the ſpace of four years.

6. Obſervat. of *Hydrocele.* A Gentleman of about ſixty years of age, labouring of an *Hydrocele*, was commended to me by Doctor *Moriſon*, his MAJESTIE's Botanick. The Swelling was within the Tunicles of the right Teſticle, the *Scrotum* thick. I let out the Water by Puncture and *Cannula*; it was about a quart: then dreſt it as above ſaid, and the third day applied a reſtrictive Emplaſter over it, with Compreſs and Bag-truſs, and within a few days after diſmiſſed him cured of his Diſeaſe.

A year after or thereabouts the aforeſaid perſon came to me again, the *Scrotum* being replete with Water. I opened it, diſcharged the Water, & dreſſed it as above ſaid, and thought him well, and gone out of Town. But after ſome days, accidentally hearing he was ſick and kept his bed, I haſtned to him, and found him afflicted with a Colick and Fever: the *Scrotum* was alſo ſwelled and Inflamed. I ordered him a Clyſter, let him bloud, and applied an anodyne Cataplaſm. By theſe means the pain was mitigated, and the accidents of Fever, *&c.* ceaſed: but the *Scrotum* remained relaxed and big. In conſideration of which I applied Cataplaſms powerfully diſcutient, *ex rad. bryoniæ, fol. cicutæ, flor. cham. ſambuci, ſem. fænugræc.* &c. by which the Swelling leſſened. He being in haſt to go out of Town, I ſupplied him with Medica-

ments to dreſs himſelf, by which the Tumour was diſcuſſed. He hath not been troubled with that watery Swelling ſince.

7. Obſervat. of *Hydrocele.* A perſon having a Swelling in the left Teſticle deſired my Opinion of it. The Tumour was ſoft, and of the bigneſs of a Gooſe-egge, without Inflammation or pain, the *Scrotum* it ſelf not much concerned. I, ſuppoſing it an *Hydrocele*, and within ſome of the proper Coats of that Teſticle, adviſed him to truſs it up cloſe, and in caſe it grew bigger, I would open it; for at that time there was not half a pint of Water in it. After a year or more, this perſon in riding bruiſed the ſame Part againſt the Pummel of his Saddle; it immediately became painful and hard. He came to *London*, and ſent for me. It ſeemed to me then to be in a capacity of diſcuſſion by reaſon of the acceſs of heat: to which purpoſe I preſcribed this Fomentation: ℞ *fol. hyoſcyami, cicutæ, an.* M. ij. *fol. malv. biſmalv. an.* M. j. *flor. cham. ſambuci, an.* M. ß. *rad. bryon. & lilior. an.* ℥iv. *ſem. lini & fœnugræci an.* ℥ij. theſe to be decocted *in brodio ex capite & pedibus ovinis*, and the *Fæces* made into a Cataplaſm, with the addition of *medulla panis tritic. mel. comm. & axung. porcin.* By the application of theſe emollient and reſolvent Medicaments the hardneſs and Swelling were removed, and the Teſticle reduced to its natural ſtate.

8. Obſervat. of an *Hydrocele* returned. One between forty and fifty years of age, of a full Body, came with his Chirurgeon to conſult me concerning ſome kind of *Hernia* which of late began *in Scroto*, and was ſince by accident of Bruiſe much increaſed. At ſight of the Tumour it appeared to be overſpred with an *Ecchymoſis*, and I ſuppoſed the Humour within it to be an extravaſated *Serum*. I adviſed a diſcutient and exſiccant Fomentation and Emplaſter, alſo a Bag-truſs. Some little while after, ſeeing the Extravaſation diſcuſſed, and the Tumour inconſiderable, I adviſed the continuance of the Truſs. About a month after we viſited the Patient, and ſaw the Tumour very large and tenſe, and by holding a lighted Candle on one ſide it appeared ſplendent. We concluded it an *Hydrocele*, and propoſed the Opening of it: but the Patient at that time declined it; and ſome while after his Chirurgeon aſſured me that it went off of it ſelf, without any manner of Application.

9. Obſervat. of an *Hydrocele* with *Sarcomata* of both Teſticles. Whilſt I attended the KING at *St. Johnſtone* in *Scotland*, a Man of about forty years of age deſired my advice, he having been ſome years troubled with a Swelling *in Scroto*, which through length of time was grown ſo big, that he was not capable of following his affairs without much pain. It was ſoft, and ſeemed to make a double Tumour. I concluded it an *Hydrocele* diſtinctly lodged within ſome *Cyſtis*, or the proper Tunicles of the Teſticles, for I could feel neither of them. The *Scrotum* it ſelf was not concerned, otherwiſe than by its giving way to the Humours within. The Patient deſired to be cured: to which purpoſe I began my work on the right Teſticle, it being the moſt ſwelled. I applied a Cauſtick according to the length of the Part on the outſide, ſo as after the diſcharge of the Water the Opening might fall upon the ſide of the Teſticle, that, in caſe it ſhould be corrupted by the long lying of the Humour, I might the better apply Medicaments to it. The next day I divided the Eſcar, and gave vent to a quantity of Water, then to a rotten Matter, with ſome rags of corrupt Fleſh; and at laſt a bloudy *Serum* diſcharged; upon which this ſide ſunk, but the other remained full as before. I dreſſed it up with *unguent. baſilicon* hot, and applied over all *Empl. è bolo* with Compreſs and Bag-truſs. The Patient was that night ſeized with a Colick, and reſted ill; and in the morning, finding him diſtempered with a Fever, I preſcribed him a carminative Clyſter, and ſome hours after let him bloud. That evening, taking off the Dreſſings, I found the Eſcar dry, and the Parts about it ſwelled, and beginning to inflame. I fomented it with *decoct. abſinth. flor. cham.*

cham. ſambuci, roſ. rub. &c. *in vino rubro,* and applied *unguent. baſilicon* as before, and a Cataplaſm *ex far. hord. fabar.* &c. decocted in Oxymel over the diſeaſed Part. In the next Dreſſings I added *ol. terebinth.* to the aforeſaid Unguent, and continued the uſe of the Fomentation and Cataplaſm. By theſe Applications the Ulcer tended to digeſtion, and the Eſcar ſeparated; but the Swelling continued big. I then applied the Cataplaſm mentioned in the former Obſervation, doubling the quantity of *cicuta,* and dreſſed the Ulcer with *mundif. Paracelſ. cum præcipitat.* After a few days I obſerved in dreſſing of the Ulcer a rotten Slough to lie within, which I took hold of with my *Forceps,* and feeling it looſe pulled it out. It was the corrupt *Cyſtis.* Upon the coming away of which the Tumour ſunk. I dreſſed it up with Doſſils ſpred with the Mundificative, and upon the Ulcer without applied *unguent. diapompholygos,* as alſo where the *cicuta* had bliſtered the *Scrotum.* From this dreſſing the Ulcer digeſted well. My endeavour was then to dry up the humidity, and contract that part of the *Scrotum:* which I did by adding *flor. balauſt. nuc. cupreſſ. ſumach,* &c. to the former Fomentation of red Wine, and by a Cataplaſm of *far. hordei & fabar.* boiled up in ſome of the ſaid Fomentation. Whilſt I was healing the Ulcer within, a hard Swelling aroſe near the Production, and a *Fungus* thruſt out from that Part of the Teſticle. Upon ſearch I found that occaſioned the hard Swelling; whereupon I laid that part open by a Snip with a pair of Sciſſors, and covered the *Fungus* with Præcipitate and Doſſils of Lint; and by the uſe of that and the Vitriol-ſtone I conſumed it, and cured the Ulcer.

After the Patient had a little recovered his ſtrength, I began with the other by Inciſion, making it about an inch in length, ſuppoſing it would ſooner digeſt, and thereby eſcape thoſe accidents. It diſcharged the like Matter as the other did. He ſuffered alſo Colick and Fever, till the corrupt *Cyſtis* digeſted out, which was the ſpace of ten or twelve days. After which the Ulcer digeſted, and by the ſame method it healed, and the *Scrotum* contracted, ſo as it was not eaſie to judge that it had ever been diſeaſed. The Patient is yet alive, and hath never been diſturbed in thoſe Parts ſince.

A Citizen aged about forty ſix years laboured of ſuch an *Hydrocele* in both Teſticles. I opened and treated them after the ſame method as in the former Obſervation hath been ſaid. He was ſubject to the ſame Accidents of Colick, Fever, *&c.* After Digeſtion the *Cyſtis* caſt forth, as in ſuch likes caſe is uſual, and by the bleſſing of God I cured him. Doctor *du Molin* ſaw him dreſt once or twice, and preſcribed him ſome cordial Julep, *&c.* as he thought fit. 10. Obſervat. of the ſame.

Theſe *Hydrocele's* do not differ in the way of Cure, therefore I forbear a more particular diſcourſe or giving you more Inſtances of them; but wiſh you to conſider the Age and Habit of body before you begin this way of Cure; for they are generally ſubject to Colicks, Fevers, *Singultus,* &c. and, if the native heat be weak, they are apt to gangrene.

Hydrocephalus is a watery Swelling of the Head, having the ſame Original with other Hydropical Tumours. It is moſt uſually the Diſeaſe of Children. The Part affected is (as I ſaid) the Head, either within or without the *Cranium.* *Hydrocephalus.*

The *Cauſes* of it are an effuſion of the *Serum,* either outwardly between the *Cranium* and the Scalp, or inwardly between it and the Membranes. Cauſes.

Thoſe that happen on the outſide are too often the effect of ill handling by Midwifes and Nurſes, whereby the capillary Veſſels are bruiſed, and the

ſerous part of the Bloud extravaſated. From this Bruiſing it is that Corruption often followeth, and the Humour is apt to ſtink.

The other more internal *Hydrocephalus*, affecting the Parts within, is an effuſion of *Serum* within the Scull, either between it and the *Dura mater*, or between that and the *Pia mater*. It is not leſs frequent to find this *Serum* ſo extravaſated to coagulate into a ſtiffe gelatinous ſubſtance all about the Veſſels under the *baſis* of the Brain, and thence to involve all the Roots and the *Caudex* of the Spinal marrow, quite over the *Nates* and *Teſtes* and *Glandula pinealis*, reaching into the Ventricles of the Brain. Many inſtances of this kind I could give you in Ricket children: but theſe things are not to be diſcovered till the Patient be dead.

Signs. The *Signs* are ſuitable to the Part affected, and the quality of the Humour. If it lie immediately under the hairy Scalp, and poſſeſs it, all the whole Head muſt be ſwelled. If the Matter within be œdematous, it will pit under your finger: if it be a pure *Serum*, it will return to its ſeat when your finger is taken off. The Face is pale and ſwelled, ſo alſo are the Eye-lids, ſometimes bloudy and ſhining. In the increaſe of it, it ſometimes thruſts out a Tumour like a Wen, but the Fluctuation of it ſheweth it to be Water. If it be between the *Cranium* and *Pericranium*, you may feel the *Cranium* bare, and a Fluctuation between it and the *Pericranium*. If it lie between the *Cranium* and *Dura mater*, the Sutures are looſe, ſo that you may often bury your finger between them. When it lieth under the *Dura mater*, it maketh that ſwell, and frequently thruſts it ſelf through between ſome of the Sutures of the Scull; as particularly it did in a young Child, of which anon. What is within the Ventricles of the Brain is not eaſily diſcovered whilſt the Patient is alive; only it may be gueſſed at by great Stupidity and Inſenſibility, if any ſuch thing be.

Doctor *Walter Needham* did tell me of one that in *Bedlam* was obſerved to ſit upright with his back to a wall without ſpeaking or opening his Eyes for many months, only ſome odd mimical geſtures he uſed. Upon his death he was opened by order of Doctor *Thomas Allen*, Phyſician of the place. An œdematous Tumour was found to occupy all the upper part of the *Cerebrum* between it and the *Pia mater*, which deſcending by the poſteriour parts of it did poſſeſs the entrance into the two Ventricles, the *Glandula pinealis* it ſelf being turned into a Bladder of water.

But the Story cited out of of *Veſalius* by *Sennertus* is yet more wonderful, of a young Girl, that kept her Senſes well enough, yet her Head ſwelled ſo great as to hold nine pints of Water. The like Obſervations we find in *Hildanus*, *Kerkringius*, and others, where the Brain hath been ſo little, and ſo oddly placed, that the whole hath been judged to be Water. By which we may judge that Stupidity, though, when we find it, it may give us cauſe of ſuſpicion that ſuch a Tumour is there lodged, yet it is not the neceſſary concomitant of the Diſeaſe.

Prognoſtick. Children labouring of this Diſeaſe are for the moſt part very unhealthful, and in their infancy ſubject to Convulſions. If they ſcape that, they fall into *Rachitis*, which for the moſt part terminateth in the *King's Evil*.

Thoſe that thruſt out from within the Scull are deadly. Thoſe next the *Cranium* are not without great danger. If the Tumour be large, and poſſeſs all the Head, the Cure is not without difficulty: but if it poſſeſs only ſome particular external Part, it is more eaſie.

Cure. The *Cure* of this Diſeaſe is much the ſame with that which hath been delivered in the general Diſcourſe of watery Tumours, *viz.* by powerful diſcutient and drying Medicaments; as *ſummitat. thymi, abſinth. majoranæ, fol. beton. ſalviæ, flor.*

flor. ſambuci, chamæm. roſ. rub. balauſt. ſumach, bacc. myrtill. nuc. cupreſſ. gland: querc. gallæ. Theſe may be boiled in Wine, or in a *Lixivium*. And if ſtronger Medicaments be required, you may add to them *ſulph. vivum, alum.* and the various Salts, with which you may foment the Parts. You may alſo embrocate with ſuch like; ℞ *ol. laurin. anethi, an.* ℥ij. *ol. de ſpica, de lateribus, an.* ℥j. *ſulph. vivi, ſalis com. aluminis uſti, an.* ℥ß. *ciner. ſiliquar. fabar.* ℥ij. *terebinth. ſtyracis calamitæ, an.* ℥j. Or with the addition of Wax make it into a Cerote. Or, ℞ *pulver. ſummitat. abſinth. origani, flor. roſ. rub. balauſt. an.* ℥j. *ſalis com.* ℥vj. *mellis com. q. ſ. fiat Cataplaſma. Empl. de baccis lauri, cephalicum, empl. diaſulphuris, de ſinapi*, are proper. In order to the applying of theſe the Hair ought to be ſhaved. Fontanels are alſo of uſe in the Neck and behind the Ears, *&c.*

If the Humour doth not diſcuſs by the aforementioned Remedies, you may let the Water out by ſmall Apertions, that it may as it were inſenſibly diſcharge; and the while continue the uſe of the milder Diſcutients and Exſiccants, to reſtore the Scalp to its natural tone. But if, through length of time, the Humour hath united it ſelf into a Tumour of ſome particular Part, if you be ſatisfied that it doth not ariſe from within the Scull, you may cut into it, and let out the Water; or, if it hath a ſmall *baſis*, make a Ligature on it, and cut it off. But if you ſuppoſe it ariſeth from within the Scull, forbear the extirpating it.

A Child of about four years of age was brought to me, ſuppoſed to have the *King's Evil*. The Head was extraordinary big, the Face full and pale, the Eye-brows and Eye-lids ſwelled. I laid my hand upon the Head, and, feeling it ſoft, I adviſed them to purge the Child with *reſina jalapii* or *diagridium* and *Calomel.* in the form of a *bolus, cum ſyr. de ſpina cervina*, and to make Fontanels in the Neck and behind the Ears, and afterward, if there were occaſion, to ſhave the Head, applying ſuch Medicaments as have been ſet down in the method of Cure. Sometime after the Parents told me the Child was cured only by the Fontanels behind the Ears. 1. Obſervat. of *Hydrocephalus.*

In a Child of half a year old, labouring under a watery Swelling of the upper part of the Head between the hairy Scalp and *Pericranium*, I made Iſſues behind the Ears and in the Neck, and fomented the Head with a Decoction of the milder Diſcutients and Exſiccants boiled in red Wine. But, it being cold weather, they rather deſired an Emplaſter. In compliance with their deſires a cephalick Emplaſter was applied. After ſome time it made ſuch an itching and ſoarneſs, as put us upon the neceſſity of taking it off; which was not done without difficulty, the Scalp being much excoriated underneath. We fomented it again as aboveſaid, and applied Colewort-leaves on the Parts affected. It healed up in few days, and the Diſeaſe was not much leſſened: the Iſſues behind the Ears alſo healed as the Eſcars caſt off. Having applied ſeveral Medicaments unſucceſsfully, I made two or three Punctures into the Scalp, and let the Water out; then applied a Cataplaſm *ex far. fabar. flor. roſ. rub. balauſt. nuc. cupreſſ. bacc. myrtill. & ſummit. hyſſop. pulver.* decocted in red Wine. By the uſe of this and the foreſaid Fomentation the Child was cured. 2. Obſervat. of *Hydrocephalus.*

A Gentleman of about forty years of age, having a large Tumour on the *Os lambdoides* bigger than a Gooſe-egge, was commended to me by Sir *Fra. Pr.* I ſhaved the Hair from about it, brought the *baſis* in by a Ligature, and cut it off; then made a croſs Stitch, taking up the Artery with the ſame Stitch, and brought the Lips as cloſe as conveniently I could; then dreſſed up the Wound with *pulv. Galeni cum albumine ovi*, and applied an *Emplaſtr. è bolo* over all, with Compreſs and Bandage. The Humour was a crude *Serum*, as 3. Obſervat. of *Hydrocephalus.*

in

in *Hydrocele*; only in the bottom of it there were dregs that seemed to be a melicereous Matter. The third day after, finding the Wound tending to digestion, I dressed it with the common Digestive *ex terebinthina*: after Digestion I cut the Stitches, and incarned and cicatrized it in few days by the usual Medicaments set down in Wounds of the Head. Many as big I have taken off the same way, and cured accordingly.

4. Observat. of *Hydrocephalus.*

Some years since I was fetched to a little Infant not ten days old that was born with two of the above-mentioned Tumours. They were of the shape of Cupping-glasses of the middle size, seated upon the *Suturæ lambdoïdes* and *sagittalis*: they had their Original within the Scull. I felt the Holes they thrust out at; each Hole was round, I suppose of the compass of an Half-crown, and, as I afterwards found, had their *Cystis* from the *Dura mater*. The Infant seemed to be dying when I came; it died that night. The next day I opened it, and found it as I have said. There was also great quantity of Water floating within the *Meninges*, and in the Ventricles of the Brain, and a gelatinous substance all about the Vessels on the upper part, as also under the *basis* of the Brain, *&c.* as I have before related.

Chap. XXIV.

Of Scabs and Itch.

Causes.

After Waterish Tumours I find Authors frequently treating of the *Scab* or *Itch*; a Disease which seems to have its Original either from abundance of vicious Salt in the Bloud, or possibly from a local Ferment in the Skin.

A Scab catched by Infection seems pretty manifestly to own its Origine to a local Ferment, there being no other fault in the Body than what lieth in the Skin it self, and converteth the nutritious Juices thither conveyed into the Disease here mentioned. And its probable that most other Itches do begin in the same place, there being in the Skin a vicious Ferment which makes a Concoction accordingly, and consequently causeth all the other Degenerations that happen. These Degenerations do increase to a farther infection, if the Bloud abound with a salt *Serum*; in which case the Fermentation becometh exorbitant, the Disease groweth more vigorous, spreads farther inward, and infects the whole masse.

This way, I say, the Itch is very often generated, pressing from without inward: nay, I believe that most commonly it so happens. But I do not deny that it may likewise rise from within, as some of the greater sorts of Scabs certainly do.

Differences.

The *Differences* may be taken from the Cause, and accordingly as it affects the whole Body, or some particular Part, as the Hands, *&c.*

The Disease needs not much description; it's known by its nastiness and trouble, and upon that account is more important than it would otherwise be thought.

Prognostick.

The Scab or Itch is not esteemed dangerous to Life when it proceedeth from an outward Infection. But if it owe its Original to an inward indisposition of the Bloud, it may prove dangerous; either when it is accidentally stopped by external Applications and causes, upon which occasion Fevers, Epilepsies,

Epilepsies, Consumptions, and many other like Accidents, have arisen: nay, when the Scab hath not been hindred in its untoward progress, the Bloud hath notwithstanding been wholly corrupted, and the Patient brought to the grave. Another mischief it hath, *viz.* Infection, especially if the Scab be moist and full of subtil Humours. Upon all these accounts, both of the Turpitude, Danger, and Infection, it is convenient to propound a Cure.

Whether this Disease arise from an outward Infection, or inward indispo- Cure.
sition of the Bloud, the Cure is much one; only this latter requireth more your consideration, to take the indication from the Cause, and to make Evacuation accordingly before you apply your external Remedies.

In the first place, a good Diet ought to be prescribed, of Mutton, Veal, Pullet, Chicken, *&c.* and those rather boiled than roasted. All sharp, salt and spiced Meats are forbidden: so are all Fish, Milk, and Herbage, as being corrupters of the Bloud. Their Drink may be a small Wine diluted with Water, or a well-boiled small Ale, which may also be medicated with Dock-roots, Succory, and Grass-roots, the tops of Agrimony, Pimpernel, Harts-tongue, Fumitory, Hop-buds, *&c.* Or, ℞ *fol. agrimoniæ, origani, veronicæ utriusque, an.* M. ß. *rad. enulæ, camp. scorzoneræ, hirundinariæ, an.* ℥iij. *macis, cinnamomi, an.* ʒj. *coq. in cervisiæ tenuis* ℔vj. *ad dimid.*

The Evacuation ought to begin by Bleeding; and if Bloud abound, the Venæsection may be repeated, after the Body hath been somewhat emptied by Purging.

The Purgatives may be Whey and Manna, with *trem. tartar.* or a Decoction of some of the opening Roots, with *sena, rhabarb.* &c. ℞ *summit. fumariæ,* M. j. *rad. cichorii, polypod. lapathi acut. an.* ℥j. *flor. trium cordial.* M. ß. *epithymi* ℥ij. *senæ* ℥iij. *rhabarb. incisi & in nodulo inclus.* ℥j. *liquiritiæ* ℥ij. *sem. fœnic. dulc.* ℥iij. *coq. in aq. font. ad* ℔j. *colatur. adde syr. ros. cum agarico* ℥j. ß. *mannæ* ℥ij. *vel q. s. dividatur pro tribus dosibus. Decoct. senæ* Gereonis, *Decoct. epithymi,* in the *Pharmacopœia Londinensis,* are proper in this Disease.

If the Body be strong, and the Humours contumacious, you may purge with *pulv. diaturbith, pulv. cornachin. pil. cochiæ, de agarico*; or with this: ℞ *tartari vitriolati, diagridii, an.* ʒß. *turbith albi gummosi, hermodact. an.* ℥ij. *pulverizentur, & cum oleis caryophyll. & cinnam. an.* ℈ß. *Misc. Dosis à* ℈ij. *ad* ʒj. *Merc. dulc. æthiops mineralis, Bezoard. mineral. ceruss. antimonii,* are also of use in the Cure of this Disease. If the season of the year be proper, *Barnet* or *Epsom* Waters may be also good. Amongst the common people Brimstone and Milk is a usual Remedy.

The outward Applications prescribed in the Cure of this Disease are numerous, and may be proportioned to the quality of the person, *viz.* as he is poor or rich, and the greatness of the Disease.

If it affect but some one part, as the Hands, the Cure may be performed by Fomentations, Unguents, or Cerots: but where the whole Body is infected, there I propose Bathing as most necessary. A Fomentation may be made of such like; ℞ *rad. enulæ camp. lapath. an.* ℥ij. *rad. bryoniæ* ℥j. *summit. fumariæ, abrotoni, an.* M. ij. *flor. ros. rub.* M. j. *cort. granat. sumach, an.* ʒß. *vitrioli albi* ℥iij. *salis petræ* ℥ij. *aluminis, sulph. vivi, an.* ʒß. *coq. in aq. font.* ℔iv. *colatur pro usu.* After which the diseased Parts may be anointed with some of these following: ℞ *ungent. rosat.* ℥iij. *balsam. Peruvian.* ʒß. *arcan. corallin.* ℥ij. *Misc.* Or, ℞ *sevi agnini* ℥iv. *ol. amygd. dulc. papaveris, an.* ℥j. *ol. hyoscyami per express.* ℥ij. *unguent. tutiæ Vigonis* ℥iß. *aluminis usti, zinziberis pulv. an.* ℥ij. *olibani* ℥j. *croci* ℈ij. *ceræ alb. q. s.* Or, ℞ *unguent. nutrit.* ℥ij. *unguent. populn.* ℥j. *styracis liquidæ* ℥j. *cinnabaris* ℥iij. *Misc.* Or, ℞ *unguent. popul.* ℥j. *unguent. rosati* ℥ij. *opii* ℈ß. *Misc.* In Chops of the Hands or Fingers, ℞ *unguent. rosati in succo aurantior.*

lot.

lot. ʒiij. *ceræ alb.* ʒvj. *miſceantur ſuper ignem*; *addatur piperis albi, zinziberis pulv. an. q. ſ. fiat Ceratum.*

Where the Diſeaſe hath overſpred the whole Body, there (as I have ſaid) Bathing is neceſſary; and if the ſeaſon of the year be proper, the River of *Thames* or other Rivers may ſerve: but in the colder ſeaſons Bathing in warm water is effectual, the party ſitting the while on a Bag of Wheat-bran. Perſons of quality may have ſweet Powders, as thoſe of *lign. caſſia, Rhodium, calamus aromaticus*, &c. If the Diſeaſe require it, they may have ſuch Ingredients boiled in the Bath as have been preſcribed in the Fomentation above: they may alſo have a mixture *cinerum ſarment. fraxini, alum. rup. ſulphur. viv.* &c. *cap. pulverizatorum an. p. æq.* It may be quilted in bags, or made into balls with Wheat-bran and Soap, with which they may rub their diſeaſed Bodies.

In the time of the late Civil Wars our Souldiers in the Weſtern parts of the Kingdom were much annoied with this Diſeaſe, which being gotten amongſt them, they infected one another. I commonly let them bloud which fell under my care, and adviſed them to drink for their Mornings draughts Brimſtone and Milk, and to anoint themſelves with Brimſtone and Butter. But in warm weather frequent bathing in the Rivers was their Cure.

1. Obſervat. CHange of Diet and manner of living is frequently the cauſe of the Itch. So a Youth of about ſeventeen years of age, newly entertained into a Gentleman's ſervice, raiſed from a ſlender mean Diet to a more plentiful fare, brake out with Itch and Scabs all over his Body. Several Ointments were applied, and after all a Quick-ſilver-Girdle was put on him: but the Diſeaſe enraged, and under the Girdle the Skin was heated and excoriated much. I cauſed the Girdle to be thrown off, and adviſed the raw Parts to be dreſſed with a mixture of *unguent. nutrit.* and *populeon*; then cauſed him to be let bloud, and purged with a Decoction of *radic. lapath. ſena, ſem. carthami*, &c. and directed him to bath in warm water for ſome few days: by which he was cured. Such like Youths ſo diſeaſed, in the hotter ſeaſons, after Purging and Bleeding, I have commended to bathing in the River of *Thames*, and thereby cured them.

2. Obſervat. A Girl of about twelve years of age was infected by her Play-fellows at School in the Country, and brake out in mattery Scabs and Itch all over her Body, inſomuch as her Shift was frequently bloudy with ſcratching her ſelf. I let her bloud alſo, purged her often with Infuſions of Sena, Rhubarb, *&c.* I endeavoured to contemperate the Humours by *calomel.* and *æthiops mineralis*, but without ſucceſs, it itching ſo intolerably, that, do what we could, ſhe would rub and ſcratch, ſo as it no ſooner healed in one place, but it brake out in the ſame or in another. So difficult a work it is to extinguiſh this Diſeaſe where it hath been of any long continuance. The weather growing warmer, ſhe bathed in warm water, rubbed her Body with ſome of the above-mentioned Bags the firſt three or four Bathings, and in about three weeks ſpace was freed of her Itch, and perfectly cured thereby. The Scars and diſcolouring of her Skin on her Hands and Arms were removed by anointing them with a mixture of *ſacch. Saturni* with *unguent. roſac.*

3. Obſervat. A Gentleman of about thirty ſix years of age was infected with the Itch all over his Body. I let him bloud and purged him, as hath been ſet down in the method of Cure; and, having ſo evacuated the *Plethora*, I preſcribed him the taking of *æthiops mineralis*, and ſent him ſome *unguent. popul.* &c. and cured him. By the ſame means I have cured ſome others ſince.

4. Obſervat. A Gentlewoman of about fifty years of age was very much diſturbed by an Itch. After the taking divers Medicaments unſucceſsfully ſhe ſent to me. I made

made her some Pills of *æthiops mineralis*, which she took morning and evening, without any observance of keeping her house; by which she was cured in eight or ten days, and hath not been troubled with it since, as she her self told me three years after, which was last Summer.

5. Observat. A person of about forty years old, of a melancholick and scorbutical Habit of body, was sorely afflicted with the Itch all over her Body. Her Physician at the same time being indisposed could not visit her, but, according to the relation her Servants gave him of her Disease, prescribed her Clysters, and purged her with such opening Apozemes as were proper in her case, advising bloud to be drawn from the Hæmorrhoidal Veins by Leeches, and afterwards prescribed her a Bath, in which she bathed often, but without success. Upon which consideration I was desired by the Physician to give her a visit, to inform him of her condition. I did so, and saw her Hands, Arms and Breast overspred with brawny Scales, under which were mattery Wheals. She was very hot, and her Tongue parch'd; her Pulse seemed to be oppressed. I told her she had a Fever. She replied, it was for want of sleep occasioned by the intolerable Itch and soreness. I gave an account of her condition to the Physician, who thereupon prescribed her to be let bloud about eight or nine ounces, and that night after a Clyster and a cordial Julep; by which she was relieved. About three or four days after she complained of a pain on her left Side, and had a Fever, with great heat and thirst. The Physician prescribed more bloud to be taken away; which was done to the quantity of nine ounces or thereabouts, by which she was relieved of her pain and Fever, and daily recovered strength. And upon farther information of her Recovery, her Physician advised her to remove to *Epsom*, and there to drink the Waters. She did so, and by his Prescriptions was also cured there of her Itch.

6. Observat. A Girl of about four years of age was brought to me in a poor woman's arms in the very midst of Winter, the ground being covered with Snow. She was broken out all over the Body with an Itch and mattery Scabs. The woman desired my Opinion of it, whether I could cure it. I told her the Cure was difficult; but when the weather should be more seasonable I would readily undertake it. The following Spring I was fetched to this Child, saw the Body so diseased as I before represented it, and was perswaded to undertake the Cure. I, considering that they were but few things I could give such a Child, and those required to be well tasted, therefore began with a small Ale medicated with *sarsaparilla, lign. lentisc. China*, and some of the Herbs and Roots proposed in the method of Cure for such Drinks. In some of this Ale I mixed a purging Syrup, by which the Child was frequently purged: then I gave her *Merc. dulc. in conf. ros. damasc.* once in three days, and continued medicated Ale for her ordinary drink, with which they also sometimes made a Posset-drink. By this method the Itch lessened, and the Scabs dried: but by the prosecution of it the Child's Chaps became somewhat soar. I cured the Child and finished my course by bathing it in Milk and Water, and some few Diaphoreticks. The Parents were well pleased with the Cure: but afterwards consulting a Physician (since deceased) in some case concerning their own healths, and discoursing of the Child's Cure, he perswaded them I had effected it with Mercury, and put them upon such a prejudice to the Medicament, as they from that time declined the advising with me, suspecting I might again repeat the use of it.

Chap. XXV.

Of Lepra, *or* Elephantiasis.

Description, and Differences.

Lepra and *Elephantiasis* have so many acceptions in Writers, that it is fit to distinguish them in the first place. I shall therefore understand by *Lepra* the highest degree of the Itch, where the Scabs grow dry, and break out in the form of white Scales, sticking hard to one another, not easily to be pulled off; but if they are, they leave the place red, and soon return again. The *Leprosy* of the *Arabians* was a quite other Disease, which by the *Greeks* is called *Elephantiasis*, and is nothing else but an universal Cancer of the whole Body, black, and indeed a most miserable Disease, but I think scarce known in *England*. The *Arabians* also have an *Elephantiasis* differing from that of the *Greeks*, which is a kind of *Varix*, of which Authors may be consulted.

The Disease I purpose to give you an Instance of is the *Lepra Græcorum*, supposed to be *Celsus* his *Impetigo*, and by others *Psora*, the white Scurf, proceeding from a vicious Salt in the Bloud, that doth diminish the *Serum* of it, which when the Skin should separate by a just Transpiration, in stead thereof it converts it into a dry, salt, itching, white Scab, very troublesom to the Patient, and difficult of Cure.

Cause.

The immediate *Cause* of this Disease is, as I have said, a vicious Salt in the *Serum*. Authors will have it to be generated of a mixture of *Atra bilis*, to be of a more gross matter, and to arise from evil Diet, a dry *Intemperies* of the Skin, a Suppression of the Hæmorrhoids or *Menses*, also from a Quartan Fever; and to proceed by the way of Infection, as Scabs do, it being an excess thereof.

Prognostick.

It is known by the Description I have given of it, and from thence a Judgment may be given of the difficulty and contumaciousness of Cure. If salt Humours abound very much in the body, it proves often incurable.

Cure.

The *Cure* of this Disease consists in the prosecution of the same method with that of the Scab; only this, as it exceeds that, requires to be treated more strictly, and with Medicaments more powerful. I shall not trouble you with the particularizing them, but refer you to the Observation following.

1. Observat. of *Elephantiasis*.

A Young Woman about 20 years of age had been long afflicted with a Species of an *Elephantiasis* upon her left Brow. Many endeavours had been used by Prescriptions internal & external, *viz.* frequent Venæsections, application of Leeches, *&c.* The Disease increasing, I was consulted, and advised her to purge once in four days with *Mert. dulc.* and *diagrid.* and the intermitting days to take *Bezoard. mineral.* and to drink for her ordinary drink *decoct. farsa, lign. lentiscin.* with some of the alterative Plants prescribed in the method of Cure. The Part affected we fomented daily with the *Fotus* proposed in the method of Cure: and after the Scabs and Scurf were removed, it was anointed with some of that Unguent of *Vigo's* prescribed in the Cure of *Herpes miliaris*. I began this Cure in Winter, presently after *Christmasse*, and cured her before the Spring; yet advised the continuance of the internals, purging her weekly, and

and when the weather should grow seasonable, bathing in fresh water temperately warm. I saw her half a year after perfectly well.

A Maid of about thirty years of age, having been a long time diseased with an *Impetigo*, or Species of *Elephantiasis Græcorum*, in her Arms, Thighs and Legs, came commended to my care. It began with a *Serpigo*, making many round spots, such as are generally called *Ring-worms*, with extream itching, which by frequent scratching heated and mattered, and afterwards scabb'd, and in progress overspred her Lims with a dry white Scurf, under which the serpiginous circles lay covered. She had passed through the milder Remedies frequently without success: upon which account I designed Mercurials; and beginning with Venæsection, afterwards purged her with *decoct. epithymi*, as it is prescribed in the method of Cure. After the second Dose I gave her twenty grains of *calomel.* over night, and purged it off in the morning with the said Apozeme: during which I caused her Lims to be bathed and rubbed often with the Decoction to that purpose prescribed in the method of Cure, by which the Scurf was moistned and brought off; then it was anointed with one of the foresaid Unguents. After I had thus evacuated the *Plethora*, and disposed her body for Mercurials more operative, I gave her each morning and evening a few grains of *Mercur. diaphoret.* in a *bolus* with *conf. lujulæ* and Mithridate, disposing her thereby to a breathing sweat, and caused her Lims to be daily anointed with *unguent. enulat. cum Mercurio.* These Medicaments proving unsuccessful, and her Chaps not growing soar, I caused her Lims to be anointed with Sir *Alex. Fras.* his Unction prescribed in *Lues venerea*, and vomited her once in four or five days with *Turbith mineral.* By this course she emaciated, and her Skin became clean of the *Impetigo*, &c. but she did not salivate, nor indeed were her Chaps very soar. I concluded her course of Physick with Bathing, and Sweating with Diaphoreticks, purging her between whiles, for the space of a fortnight, and dismissed her, with advice to drink a Decoction of *rad. lapath. summit. fumariæ dulc. amaræ*, &c. About two months after she shewed her self to me cured and well complexioned, and is well at the Printing of this. 2. Observat. of *Elephantiasis.*

A Maid of about fourteen years of age, of a sallow Complexion and lean dry Body, having been diseased from her infancy with a white dry Scab from the crown of her Head to her Feet, her Skin of a Moorish tann'd colour, after taking divers Remedies without success, was at last put into my hands for Cure. I purged her with a draught of the *Decoctum epithymi*, & the day after let her bloud about eight ounces or more. She bare it well, and the bloud was of good colour and consistence. The day after I purged her with some of the same Decoction, with the addition of *syr. de pomis purg.* and in the while caused a medicated Ale to be made according to the prescription hath been set down in the preceding Chapter of the method of Cure, which was her ordinary Drink, & served to make Posset those days she purged. Then I prepared a Bath wherein had been boiled *fol. & radic. althææ, lapath. enulæ camp. bryoniæ, fol. scabiosæ, majoranæ, fumariæ, saponariæ, bacc. laur. juniper. sem. staphisagriæ, sem. sinapis, alumen, sulph. vitriol. Hungaric.* and a Bag of Wheat-bran to sit upon. I prescribed her likewise the Mixture afore mentioned made into a Ball, with common Soap, for her to rub her self with while she sate in the Bath. She had also a Pearl-Julep ready to take upon occasion. After she had thus bathed according to her strength half or three quarters of an hour, she was lapt in a warm Sheet, put into bed, and took a morsel of a cordial *bolus ex theriaca, conf. borrag. lujulæ, Bezoard. occident. ocul. cancr. troch. de viper.* made up *cum syr. è cort. citr. & pom. alterant.* Upon which she swet an hour or more, then dried, and anointed with one of the fore-mentioned Unguents. A waist-coat, *&c.* was put on, 3. Observat.

and she arose and was dressed. Her Diet was of good nourishment and easie digestion, such as hath been already proposed. I continued this method of Bathing some while, and purged her every third day with *calomel.* ℈j. at night, and a draught of *decoct. epithymi* next morning. Her Head was full of white dry Scabs; for which reason her Hair was clipt close off, and her Head bathed with a *Lixivium* wherein had been boiled some of the same materials which were prescribed for the Bath, and then anointed with burnt Butter *cum fuligine & sale an. p. æqu.* In the time of Bathing I caused her Head to be rubbed with common Soap, and bathed, to loosen the Scurf and dry Scales. Sometime during her Bathing I rubbed some of the largest Scales and such as stuck firmest with a Caustick-stone, which did not only hasten their fall off, but scoured the Skin notably well. Where the bigger Scabs separated, there remained for the most part an ugly discolouring of the place, and little Excrescences of flesh, by which those Scabs had been held on so close as if they had been thereby nailed fast. These Excrescences I rubbed off with the Caustick-stone, and where there was occasion I dressed the Parts with *unguent. tutiæ* or *lithargyr.* yet notwithstanding the Disease rose in one part as it dried in others. Upon which consideration I vomited her with a few grains of *turbith mineral.* and repeating it twice or thrice, intermitting a day or two between, her Chaps swelled. Upon which I forbore the use of the Bath, and kept her warm, then salivated her seventeen or eighteen days: in which time the Scurf fell off quite, and her Skin became clean. I then purged her with Sir *Alex. Fras.* his *Potus amarus*, and put her into a *decoct. sarsæ, Chinæ*, &c. with some of the hepatick Plants; I swet her for some days with Diaphoreticks, purging her once in three or four days; then bathed her in warm water, washing her Body with Balls of Wheat-bran and Soap for some few days. Thus we concluded the course, she being to all appearance perfectly well, and her Complexion fresh. She should then have returned into the Country, but that I desired she might stay the Spring of the year for a farther trial of her Cure, it being then *February.* She did stay, and in *April* the Disease began to appear in her right Arm, and rise scattering about her Body; which encreasing, I let her bloud again, purged her with Whey and Manna, and bathed her in warm water, wherein I put a Solution of Sublimate, designing that way to flux her. But it not rising to my mind, I anointed her Legs and Arms with Sir *Alex. Fras.* his *unguent. Neapolit.* by which I salivated her near thirty days; in which time the Scabs fell off again. As the Salivation declined, I put her into a *decoct. sarsæ* as formerly, swet her and purged her, and, having finisht the course with Bathing as I had done before, delivered her once more cured. Her Friends, seeing her thus recovered, put her to School, to give her that Breeding which her diseased Body had hindered her so long from. Since that she is married, and, as I have been lately informed, continues well: yet is not so freed of that Disease, but that she hath sometimes little Remarques of it.

Chap. XXVI.

Of Gutta Rosacea.

THe Face is also subject to these irksom Diseases, which have been anciently distinguished by the names of *Impetigo* or *Lichen*, *Mentagra*, and *Gutta Rosacea*. The former of which raged in *Italy*, and was taken notice of by *Pliny* in his days as a malign Disease; but it is not known in our times, unless it be in the *Lues venerea*, where are sometimes found all the Species of *Impetigo* and *Pustulæ* that ever were mentioned by any of the Ancients. But in this place I shall only take notice of the *Gutta Rosacea*, a Disease which, when heightened by acrimony, is not inferiour to the most malicious of other Diseases, and as difficult of Cure.

Gutta Rosacea ariseth in little hard Tubercles like so many *Hordeola*, affecting the Brows and Face all over with great itching, which being scratcht look red, and rise in great Welks, rendring the Visage fiery, and in progress of time make those toting *Copper-noses*, as we generally express them. Description.

The immediate *Cause* is a gross hot Bloud affecting the Face with such a flushing heat as is commonly seen in Blushing, and by reason of its gross consistence can neither return back, nor suddenly discuss, but remaineth in the Part, and after some time riseth in red Pimples, which so vitiate the tone of the Fibres, that though the Patient do get afterwards a better Habit of body, yet doth he for the most part suffer under the Disease. Ill Diet is a Cause, hot Spices, Onions, Garlick, and the like; so are strong Wines: yet it's thought more commonly to befal those that drink strong Beer. A suppression of the *Menses* or Hæmorrhoids is often a Cause of this Disease. Cause.

The *Signs* of the Disease are, a flushing heat, with red Pimples and Tubercles, which in progress of time become blewish, and of a more dark red colour. Signs.

The *Gutta Rosatea* is difficult of Cure in its recency: and if it be of long continuance, the Tubercles grow big, and Excrescences arise out of them, and they accompany the Patients to their graves. Prognostick.

The *Cure* is begun with regulation of Diet, removing of the Obstructions in the *Viscera*, and contemperating of the evil quality of the Bloud. The Diet ought to be of good nourishment and of easie digestion, as hath been above said. The Evacuation consists in Bleeding, and Purging with opening Apozemes: as, ℞ *fol. cichor. acetosæ, an.* M. j. *sennæ* ʒiij. *tamarind.* ʒß. *flor. trium cordial. an.* P. j. *liquiritiæ* ʒij. *sem. fœnic. dulc.* ʒj. *coq. ad* ʒiv. *in colat. dissolv. Rhei in aq. cich. infus.* ʒj. *syr. ros. solut.* ʒiß. *aq. cinnam. cochl.* j. *Misc.* Or, ℞ *rad. oxylapath. acetosæ, cichor. gramin. an.* ʒj. *fol. endiviæ, fumariæ, dent. leon. capill. Ven. an.* M. j. *sem. quat. frig. maj. an.* ʒiij. *liquiritiæ* ʒß. *sennæ* ʒij. *tamarind.* ʒj. *galang.* ʒij. *santal. citr.* ʒj. *coq. ad* ℔j. *colat. adde expressionem* ʒß. *rhab. in prædict. decoct. syr. de pomis purg. & diasereos an. q. s. fiat Apozem.* With which you may purge your Patient. After which Chalybeats may be of use, *&c.* Cure.

In the use of externals, if the Disease be recent, only with a flushing heat in the Skin with some small Pimples, a *decoct. malvæ, bismalvæ, viol. sem. verbasci, psyllii*, or the like, may give a breathing to the Humour; and a Posset made

made with juice of Limons or the like may restore the Face to its former good Complexion. But if the Disease be of longer standing, and the Tubercles many and hard, you must then bath them with more powerful Emollients: as *rad. sigil. Solomon. cucumer. agrest. rad. lilior. sem. lini, fœnug.* &c. and *cerat. dialthææ* may be afterwards applied on them, and such Medicaments as may dispose them to Suppuration: then they may be opened with a Lancet, and the Matter discharged. You shall afterward deterge and cicatrize them with as small a Scar as may be, and smooth the Skin with such like; ℞ *camphoræ* ʒj. *ol. amygd. dulc.* ʒiij. mix them in a mortar, then add *ol. Tartari per deliquium* ʒij. *vitell. ovor. num.* ij. *sacch. Saturni* ʒß. *aq. flor. fabar. sigill. Solomon. & aq. ros. an.* ʒiij. Or a *lac virginis* thus made; ℞ *lithargyr. aur.* ʒiij. *aceti optimi* ℔j. *coq. ad dimidium, & colatur. adde salis com. in aq. font. soluti* ʒiv. *aq. ros.* ʒvj. *sal. armoniac.* ʒj. *Misceantur omnia simul pro usu.*

Observat. A Gentleman of about forty years old was very much vexed with a flushing heat all over his Face, with some red Pimples not considerable. Many Medicaments he applied, but in progress of time they terminated in Tubercles, some whereof were round, others of an oval figure; some were hard, others soft. They all itcht extreamly, and put him upon a pinching of them, upon which they grew the bigger. One of them he opened with a Pen-knife, and gave vent to a viscous white Matter, but the Tubercle fill'd again. Upon which consideration he advised with me, and desired my help. I caused a Fomentation to be made of some of the Emollients above mentioned, and to the *Fæces* beaten and pulped I added *axung. gallin. anatis, ol. ex ped. bovinis*, and with a little *terebinthina* and Wax made a Cerote, which after the use of the Fomentation was daily applied. In the while he was purged, as hath been above proposed, and let bloud, and afterwards drunk *Epsom* Waters. By this method much of the Matter was evacuated, the heat contemperated, and the Tubercles in part breathed forth. Those that suppurated I opened, and discharged the Matter: and those that would neither suppurate nor discuss, I cut into, and permitted them to bleed. By the continuance of Emollients they resolved, and in the space of six weeks he was in a manner freed of these Hillocks, and his Countenance became smooth and clear.

Some others I have cured by the same method, and of the female Sex, where it was more discernable. I shall forbear the instancing them, because it was a work of time, and performed after the same method.

CHAP.

Chap. XXVII.

Of Flatuous Tumours.

WE have already treated of Tumours coming from *Humours*, which was our first general Head: we shall now say somewhat of those that owe their Origine to *Wind*, called by the *Latins Inflationes*, by the *Greeks Emphysemata*.

They are by Authors usually ranked next to *Oedema*, as partaking much of the nature of those Tumours, having generally a watery Phlegm joyned with them.

Emphysema is a light puffy Tumour easily yielding to the pressure of your fingers, and ariseth again in the instant you take them off. It is of an uncertain bigness, some times very large, other times small, without any weight to the Part that contains it. Description.

As to the *Differences*, they are either pure, or mixed. A pure *Emphysema* is found rarely, unless it be in cases of Wounds in the Breast, where the air getting in between the Muscles and Membranes doth puff them up like to the inside of a Shoulder of Veal. Most usually they are mixed with Humour, which is always Phlegmatick. They differ also as to their place, some being inward, others outward. The inward belong to the Physicians. Outwardly we find them upon the Eye-lids, on the great Joints, and in other membranaceous Parts. The Belly is very subject to them, both in the *Scrotum* and Navel, which are the usual seats of the *Hernia ventosa*; and indeed in other parts of it whersoever of the Guts, *&c.* the *Peritonæum* is relaxed. In which places we do first find a soft windy Tumour, and at length, if it be not prevented, an Extuberance of the Gut it self. Differences.

The *Cause* of the pure *Emphysema* is evident, *viz.* the ingress of air. But that of the mixed ones is not so easie to be assigned. And possibly he that reads what the learnedest Authors have said on this Subject will depart unsatisfied. Cause.

In the inward Parts, as in the Ventricle and Guts, we find manifest acidities, which meeting some fermentaceous Matter do huff and puff, and, being contained within the bounds of these Cavities do blow them up into a Tumour, which is usually dissolved by Evacuation upward and downward; which notwithstanding doth not prevent the successions of new Inflations, unless the fermenting principle be destroyed.

In the outward Parts, as the Knees, *&c.* we do imagine some proportionable degeneration of the local Ferment, which doth make the like Ebullition with the extravasated Humour. The Vapour so generated being confined within the Skin, so as not to be suffered to pass out, remains there in a windy or flatuous Swelling.

Those Tumours are without alteration of colour in the Skin, or pain, unless they lie deep amongst the sensible Parts near the *Periosteum*. One *Sign* is given us of them, *viz.* the sudden increase and diminution. The Ancients distinguish an *Emphysema* from other Tumours by the Sound it giveth when struck upon. But that Sign I have not met with, no not in the *Tympanites*. Indeed a crackling Signs.

crackling is often felt, if the Tumour be in the Knee or other outward Part; and in the Belly Wind is heard to rumble: but what concerneth inward Diſeaſes is not within compaſs of my diſcourſe.

Progno-ſtick. Flatuous Tumours affecting the great Joints are of moſt difficult Cure, and not to be opened without mature conſideration. All Tumours of this nature are more eaſily cured in Summer than Winter. But thoſe off from the Joints may be opened at any time, and are of eaſie Cure.

Cure. In the *Cure* of thoſe Tumours you may proceed by internals, as hath been ſhewed in *Oedema*, the Cauſes differing but little, both being from a Phlegmatick conſtitution of the Bloud. Phlebotomy may be admitted, if Bloud; but generally the Pituitous Humours are here in fault, and they are to be prepared and purged as aforeſaid.

The external Applications ought to be ſuch as may by their heating and attenuating quality diſcuſs the Flatulencies. Such are *ſummitates majoranæ, abrotani, hyſſopi, origani, rutæ, roriſmarin. bacc. lauri, juniperi, ſem. aniſi, fæniculi, carui, cymini*, &c. Of which Fomentations may be made in Lixivies or Wine. *Sacculi* likewiſe may be made *ex ſem. milii, cymin. & ſale.* Embrocations may alſo be as followeth. ℞ *ol. rutacei, ſambucini, chamameli, anethi, an.* ℥j. *ol. majoranæ, carui, an.* ʒj. *Miſc. ol. ſulphuris, terebinth bal. ſulphuris Rulandi, Empl. de baccis lauri, è cymino.* Or, ℞ *fæcis ceræ novæ* ℔iß. *micæ panis furfuracei* ℔ß. *flor. roſ. rub.* ℥j. *coquantur in vino albo; deinde contunde, & adde piperis, caryophyl. nucis myriſticæ, zinziberis an* ʒijß. *ſem. cymini, aniſ. fænic. ammeos, an.* ʒß. *ol. chamameli, anethi, rutæ, an.* ʒij. *Miſc. S. A. & fiat Cataplaſma.* Scarification, Bliſtering and Cupping are alſo commended. If by none of theſe it yield to Diſcuſſion, but inflame and grow painful, treat it with Anodynes; of which *cerat. æſypi* and *lana ſuccida* hath the preeminence. But if the Tumour be in ſuch place where it may be ſafely opened, the ſpeedieſt way of Cure is by cutting into it. Some Writers have adviſed the binding of the Part above and below, and opening the Tumour between. If you think there be reaſon for it, do ſo; but there is no fear of its flying away from the vent you ſhall give it. The Cure of the Abſceſs is afterwards effected as in other crude Abſceſſes hath been ſhewed.

In penetrating Wounds of the *Thorax*, and where the external Orifice is ſmall, there flatulent Tumours may be frequently ſeen greatly blowing up that and the adjacent Parts. The Cure is performed by inlarging the external Orifice in the Skin. You may ſee an Obſervation of it amongſt thoſe of the Breaſt in the Treatiſe of *Wounds*.

Of the many that have come to me ſuppoſed to have the *King's Evil*, there were not a few diſeaſed with crude Tumours of other kinds. Some of thoſe which ſeemed moſt like Flatulent Tumours I opened, but they proved all to be phlegmatick and wateriſh Tumours. Thoſe in the very Knees which are ſo generally eſteemed flatulent, I opened by puncture with a Lancet, ſome to the very Bone: in the moſt prominent parts there iſſued forth only a few drops of ſerous bloud, and that without any diminution of the Swelling. In ſome of thoſe in which I made the Puncture leſs deep I paſſed in a Probe, where feeling a Tumour under the *Perioſteum*, I penetrated it with my Lancet, & diſcharged an *Ichor* in ſmall quantity: the Bone was there carious. Upon which conſideration I am apt to think that all theſe painful Swellings in the Knees (which are not ſtrumous) do ariſe from an over-moiſture of the Membranes & Ligaments, which in progreſs of time doth corrupt the Bone underneath, ſo that they apoſtemate & terminate in carious Ulcers. Thoſe which are leſs painful are generally ſuperficial, proceeding, as I ſuppoſe, from an over-moiſture of the *Membrana carnoſa* and Parts above it. It being ſo, our beſt endeavours ought to be in

in the applying moderate attenuating and exsiccant Remedies with good Bandage.

A Young Gentleman of about eighteen years of age was commended to my care by Doctor *Denton*. He had a round soft Tumour upon the fore-part of his right Thigh, without Inflammation or Pulsation. I applied a Caustick upon it, and the next day divided the Escar: there came nothing of Matter forth. I thrust my Knife deeper into it: there followed only a few drops of bloud, but the Tumour sunk. I dresst up the Escar with *unguent. basilicon* to digest off the Slough. During the separation of it there appeared no more Matter than might reasonably be expected from such an Escar. After separation thereof the Ulcer incarned and cicatrized in few days. This we judged a flatulent Tumour, yet it was not discovered by its Noise or Sound. 1. Observat.

A Citizen's wife aged about thirty six years, of an ill Habit of body, had, amongst other Diseases, a soft white Swelling a little above her Knee on the outside of her right Thigh. Many Applications having been ineffectually applied, Doctor *Walter Needham* and my self were consulted. We concluded it a Flatulent Tumour, and proposed the opening of it; to which purpose she was purged. Her Body being so prepared, I applied a Caustick on the most prominent part, and the next day divided the Escar, and passed my Knife deep into it: there came out nothing of Matter or Bloud. I made a search with a Probe, and passed it almost to the Bone, meeting no other opposition by the way than a soft puffy membranous Flesh, such as is usually seen in a Shoulder of Veal. I dressed it with Lenients, Emplasters and Bandage. 2. Observat. of a flatulent Tumour on the outside of the Thigh near the Knee.

The fourth day, the Physician being present, I took off the Dressings; on which there appeared little more Matter than what is usual from such Escars. The Tumour continued, and was somewhat inflamed: it required Digestion. To which purpose I sprinkled in about ℈j. of *Merc. præcipitat.* and dressed it up with Lenients as before. The third day after I dressed it again, and saw the Escar separating, and the Abscess digested. I dressed the Abscess again with Præcipitate, and the external parts with *unguent. tutiæ.* By this method the Abscess digested, and the Tumour sunk, and was cured as hath been above shewed. Many of these Tumours we meet with which are certainly raised by a *Flatus*, yet give no Sound, nor yet doth there appear any Wind to puff out upon opening.

In the time of the Wars a Souldier was brought to me much wounded. During his Cure we took notice of a large white Swelling on the outside of one of his Thighs, which we supposed Matter: and after the Digestion of his Wounds I opened that Tumour. There issued out only a little wateriſh Humour, part whereof was tinctured with the bloud dropping from the incised Lips. There was neither crackling of Wind nor hollow Sound, yet the Tumour sunk from that Dressing; and by Discutients and Exsiccants with good Bandage it was soon cured. Some other such like Tumours I have met with, and cured accordingly. 3. Observat.

A Gentlewoman of about thirty years of age had a Swelling on her right Knee encompassing the *Rotula:* it had been growing about a year or two. I supposed it flatulent, and treated it as hath been set down in the method of Cure, by Fomentations, Embrocations and Emplasters: but it heating thereby and encreasing, I applied an *Empl. è bolo*, and caused a Knee-piece to be laced on: by the continued use of which the Swelling was restrained, and the Knee recovered its former strength. 4. Observat.

Another about forty years of age, of a full Body, had a round soft Swelling lying on each side of the *Rotula* without alteration of colour in the Skin. It 5. Observat.

had ſome time diſabled her from going up or down a pair of ſtairs, and often hazarded her falling in other motions. In this caſe I applied an Emplaſter *ad herniam*, with an addition of *cerat. hyſſopi* over each Tumour, and a Compreſs of brown Paper ſoaked in *aqua fabrorum*, over which a laced Knee-piece was put on, and ſtreightned proportionably. By the renewing theſe Dreſſings once in a week or ten days the Swelling diſcuſſed, and her Knee recovered its former ſtrength: yet ſhe continued the wearing of the Bandage ſome years.

6. Obſervat. A young perſon having been ſome years afflicted with a Swelling in one of her Knees, after various Applications it increaſing, I was ſent for, and ſaw it overſpreading the Joint and Parts about, retaining the natural colour of the Skin. It yielded to the impreſſion of my fingers as a Bladder half blown up; by which I judged it flatulent. The Bone on the inſide of the Knee was alſo protuberant, which at their firſt diſcovery of the Tumour gave the Parents a ſuſpicion it was luxated. I began with a Fomentation made of a Decoction of ſome of thoſe Plants propoſed in the method of Cure, and embrocated it with *unguent. nervinum*, and with Wax made up a Cerote of the ſame, which I applied with good Bandage till I got a Knee-piece made. Being made I laced it on, and from that time repeated the Dreſſings once in a week or ten days. By this method the pain and Swelling diminiſhed, and ſhe walked on it with more ſtrength. Indeed the Cure of theſe chiefly depends on the well-lacing of them; for accordingly as it was ſtreightned, ſo the Swelling leſſened. The weather growing ſeaſonable, ſhe went to the *Spa*, and afterwards to the *Bath*: from whence returning no better, ſhe was again recommended to my care. I then attempted the diſcuſſing it by Medicaments more powerful: they heated the Tumour, and bliſtered it here and there, but did not leſſen it. After I had aſſwaged the heat by Lenients, and healed the Excoriations, I applied over the Tumour *Empl. diaſulphuris Rulandii*, laced on the Knee-piece again, and renewed the Application once in ten days. In their over-hard lacing of this Bandage the Leg ſwelled: to prevent which, I cauſed a laced Stocking to be put on it. By the wearing thereof the Knee-piece was laced with more advantage, and ſhe recovered ſtrength of it daily, to walk, dance, and viſit her Friends abroad. During this, Doctor *Micklethwait* being in the houſe viſited my Patient, preſcribed ſuch Internals as were proper for her, and propoſed the embrocating of the Tumour *cum oleo ſulph. terebinth.* which was uſed daily for ſome time. Afterwards a Pultice was adviſed of the tops of green Wormwood, Rue, Sage and Feverfew, with Hogs greace: this was applied till it became offenſive to her. After theſe ſeveral Applications, it appearing to them more viſibly that her Cure conſiſted in the well lacing of her Knee-piece, there was taken more care therein by her Servants, and a warm Cerote applied under it. The Tumour leſſenned, and is ſince very much diminiſhed. I have lately taken off the Plaiſter and laced Stocking, and hope in few weeks ſhe may leave off the Knee-piece, the Swelling being now inconſiderable.

7. Obſervat. A young Gentlewoman came to *London* with a puffy Swelling on her left Foot near her Toes; part of the Swelling ſtretched over the Toe next the little one, on which the Tumour was near two fingers breadth. It was without Inflammation or conſiderable pain. I ſuppoſed it to be Wind, and would have given vent to it; but, not being permitted, I endeavoured then by Diſcutients to ſcatter it: it inflamed, and would not yield thereto. I then applied *Emplaſtr. è bolo*, and put on a laced Sock with a Bracer tacked to it for that Toe, and by Compreſſe and careful Lacing ſuppreſſed the Swelling, and gave her ſo much eaſe, that after ſome time it hindred her not from taking

thoſe

those Divertisements others her School-fellows did. After she had worn this Sock some months, she left off the use of Emplasters, but continued the Bandage some years. The Swelling on her Foot is since discussed, but the Toe continues still big, yet inconsiderably to what it was.

Chap. XXVIII.

Of Hernia.

HAving thus far treated of Tumours by *Humour* and *Wind*; it remaineth now that I say somewhat of a Tumour made by the *interposition of a solid Body*. Examples of this nature are frequently to be found in some sorts of *Hernia*, viz. the *zirbalis* and *intestinalis*, the falling out of the Kell or Guts, which, being both of them solid Bodies, are often interposed preternaturally between several Coats of the *Peritonæum*, *Scrotum*, or other adjacent places, and do denominate the Tumour an *Hernia* of that Part where it is raised.

The Kinds.

If it burst out at or near the Navel, extending there the *Peritonæum*, together with the several Tendons of the oblique & transverse Muscles of the *Abdomen*, it is called *Exomphalos*. If either of these break down into the Cod, that Tumour is most strictly called a *Hernia*. And though only these which I have here mentioned be strictly that Disease, yet other Tumours of those Parts, for their likeness to these, obtain the same name: *viz.* the *Hernia aquosa*, which is an Hydropical Tumour; the *Hernia carnosa*, which is a *Sarcoma*, or sometimes *Scirrhus*, of that Part; the *Hernia ventosa*, which also belongs to another Head, as also doth *varicosa*: of the former notwithstanding of these two I do add something in this place, by reason of the affinity of the Cure.

Exomphalos.

Hernia.

I shall first begin with the *Hernia Scroti, intestinalis* and *zirbalis*: both which are manifestly the falling down of the Gut or Kell, either quite into the *Scrotum*, which is a perfect *Rupture*; or else part of the way only, which is usually termed a *Relaxation*.

Hernia Scroti.

That this Disease may be throughly understood, it will be necessary to give you an exact account of the Parts concerned. The principal is the *Peritonæum*, or strong Membrane that lines all the inside of the Abdominal Muscles, and then passing to the Back, doth there some way or other involve and give Coats to all the *Viscera*. It is a strong Membrane, every-where double; in the duplications of which all the *Viscera* of the *Abdomen* are hid, & through which all the Vessels do pass. Its thickness and thinness is very different in several Parts, according to the several necessities of Nature. The lower part of it is strongest, to enable the Belly the better to bear the weight of the Intestines; and is usually presumed by inadvertent men to be perforated in the Navel, for passing of the Umbilical Vessels, and in the Groin, for the transmission of the Seminals. But he that will consider the case will find it otherwise. For the Membrane, being every-where double, doth so receive these Vessels between its Coats; as that they passing behind the first Coat leave it every-where intire, both at the Navel and *Inguen*. But in the latter place, the Seminals do take the outward *Lamina* of the *Peritonæum* along with them, which, containing them in it self, doth at length make that Tunicle which involveth the Testicle, by the name of *Tunica vaginalis* or *Elytroïdes*.

This, I say, is the most natural structure of the *Peritonæum*, in which if the

inward *Lamina* be ſtrong, it keeps within the hollow of the Belly the Guts and Humours, if there, ſo that though the Cavity be full of water, yet it tranſmits nothing into the *Scrotum*; and the Tumours that happen to the *Scrotum* of Hydropical perſons are uſually anaſarcous, coming outwardly into the Membranes of the *Scrotum*, not paſſing from one Cavity to the other.

But if this inward *Lamina*, either through its own weakneſs, or the force put upon it in ſtraining, *&c.* do relax, the Entrals thruſt forwards to the *Scrotum*, and in the top of the Proceſs (uſually ſo called) ſuffer an Angle to be excavated wherein part of the Guts is contained, and the Membrane extended, but not broken. In which caſe the membranous partition that intercedes between the Guts and the *Scrotum* is viſible. But if the Membrane break, then the Entrals ruſh down without control into the *Scrotum*.

In Women alſo Ruptures are apt to happen in the Groin in the ſame place by reaſon of the tranſition of the *Ligamenta uteri teretia*, which paſs between the *Laminæ* of the *Peritonæum* after the ſame manner as the Seminal Veſſels do in men. Theſe Tumours uſually end in the Groin, and are known by the name of *Bubonocele*, which is a common name to all the *Herniæ* in that place, whether they be in men or women.

Cauſes. The *Cauſes* of *Hernia inteſtinalis* and *zirbalis* are divers. In Children it proceeds from abundance of crudity or moiſture, vehement crying, and holding their breath too forcibly. In thoſe of more age, from violent Exerciſe, hard riding, jumping, vaulting, hallowing, carrying great burthens, a Blow or Fall, or any thing that may over-ſtretch the *Peritonæum*. The very weight of the Bowels and Kell in fat people is often the occaſion of a Rupture. In ſuch bodies Vomiting may be a cauſe; yea the very ſtraining upon the Cloſe-ſtool (if they be coſtive) is enough to make a Relaxation in ſome part, and a Rupture frequently followeth.

In Women hard labour in Childbed hath often been the Cauſe of a Rupture in the Groin, as alſo in the Navel.

Signs. The *Sign* of a *Hernia* by Relaxation is, a certain Eminence or ſoft Tumour appearing under the Skin in either of the Groins, or other part of the Belly, without Inflammation or pain, which diſappeareth after the Patient hath layn ſome time on his back in bed, and appeareth again when he is up: and by laying your hand then upon it, if he cough or ſneeze, you will feel the impulſe of the Bowels, which is not to be felt on the ſound part. According as this Swelling is greater or leſs, ſo it is more or leſs accompanied with an uneaſineſs or Colick. In Infants this Diſeaſe is ſcarce taken notice of by their Nurſes, till it hath made its way into or near the *Scrotum*, to which place theſe through neglect do fall.

The Sign of a *Hernia inteſtinalis* made by Eruption is, the ſudden riſe of the Tumour, whether it be made by Blow, Fall, or the like; in which caſe the Inteſtines or *Omentum*, or both, ſlide down into the *Scrotum*, or lie in a great Tumour *in Inguine*. If it were cauſed by a Blow or Fall, there is ſometimes bloud extravaſated, and the Swelling is painful, whether it be *in Inguine* or *Scroto*; and it ſoon deſcendeth from the *Inguen* to the *Scrotum*, where you may diſtinguiſh it from a *Sarcoma* by laying your hand upon the Production of the *Peritonæum* juſt at its *Exit* from the *Abdomen*, then putting the Patient upon coughing or ſneezing: upon either of theſe you will perceive the motion of the Gut, if it be there. If this *Hernia* be neglected in the Female ſex, it will make a round Tumour near the *Pudenda*.

The *Hernia omentalis* is an unequal ſoft ſlippery Tumour, of a continued bigneſs, whether the Patient be full or empty: whereas that of the Inteſtine is round,

round, and hath a certain murmuring, if it be empty; and if it be full of Excrements, they may be felt in it. The Tumour is also greater or less according as the Patient is full or empty: a painful Colick attends it; and, if it be not timely reduced, a Fever and Vomiting followeth.

The *Hernia umbilicalis* is discerned by the Prominence in the Navel. Whether it be of the *Omentum* or Intestines, may be judged by what I have already said of the other.

The *Pneumatocele* or *Hernia ventosa*, affecting the Belly in divers parts, is distinguisht by its quick growth and roundness. Infants are frequently subject to it, sometimes in one Groin and Testicle, and other times in both. It lodgeth between the Testicle and *Tunica vaginalis*, making a Tumour like the Bladders which are found in some Fish: it is long or round, according as it possesseth only the cavity of the Testicle, or that and the whole Production.

No *Hernia intestinalis* is without danger: those made by Relaxation are least dangerous. Those by Ruption in Children and Youth under twenty years of age, or while they are growing, are curable if they be timely reduced, though the Intestine be fallen down into the *Scrotum*: but in people of full growth they are for the most part capable only of being kept up by good Bandage. If the Intestine be not speedily reduced, there followeth grievous pain, with Colick and Fever, because the excretion of Excrements is prohibited; from whence Inflammation, vomiting of Excrements, yea sometimes Gangrene and Death, insue. But if the Rupture in the *Peritonæum* be very large, the Intestines frequently perform their office as safely in the *Scrotum* as if they were in their natural place within the *Abdomen*. Prognostick.

The *Hernia umbilicalis* is subject to the like Accidents as that of the *Scrotum*, if not timely reduced.

In other cases the Skin is sometimes worn so thin that it breaks, and the Cure is most difficult, by reason of continual pressure of the Bowels.

The *Hernia omentalis* is not dangerous, yet by reason of its softness and slipperiness it is difficultly reduced, and retained within after it is reduced; but in Children it is of easie Cure: and those people who are of a sanguine and humid Temper are of more hopes of Cure than those of a dry Habit. Yet if the Tumour be small and recent, and only *in Inguine*, the Cure is feasible, be the Habit of body what it will.

Hernia arising from Wind is of more easie Cure, especially in Children, whom it generally afflicts.

In order to the *Cure*, you are to consider the *Hernia*, whether it be *intestinalis* or *omentalis*, recent or of long continuance, made by Relaxation or Ruption. You are in the first place to endeavour the reduction of it; to which purpose, you ought to advise the Patient to lie upon his Back, with his Head declining, and his Hips raised high, with his Heels retracted towards his Hips. Then with warm cloaths you are to try how you can reduce it, pressing moderately and gradually, taking care that you do not bruise it or the Testicle. If it yields not to such endeavours, you are then to consider whether the repletion of Excrements or Crudity were the Cause; in which cases you may prescribe a Clyster: ℞ *rad. & fol. althææ, fol. malvæ, viol. betæ, parietariæ, an.* M. j. *flor. cham. melilot. sambuci, an.* Mß. *sem. lini, fœnugræc. an.* ℥vj. *sem. anisi, fœnicul. an.* ℥j. *coq. ad tertias; colat. sume* ℥viij. *in quibus dissolv. sacchar. rubr.* ℥ij. *mellis rosat. colati, diacathol. an.* ℥j. *hieræ picræ* ℥vj. *ol. cham. lilior. an.* ℥ij. *salis com.* ℥ij *fiat Enema.* Or else Clysters of fat Broth with a little Salt. These may be repeated till you have emptied the Bowels, and the while the remaining Decoction may be applied hot with Stupes: and if the Excrements be hardned in the prolapsed Intestines, you may make a Cataplasm of the *Fæces*, by beating them up with *axung. porcin.* Cure.

porcin. unguent. dialthææ, ol. lilior. &c. and apply it hot to the *Scrotum*. Thus the Excrements may be ſoftned and evacuated. If Flatulency be the cauſe of its not reducing, foment and embrocate with ſuch Diſcutients as have been propoſed in *Flatulent Tumours*, (if what is preſcribed be not ſufficient;) then reduce the *Hernia*: which being done, your next work will be to ſhut up the *Foramen* by which the *Omentum* and Inteſtines paſſed forth; and that we ſhall propoſe with Medicaments that have a binding and agglutinative quality. Such is *Emplaſtr. contra rupturam* in the *London Pharmacopœia*, and *Emplaſtr. de pelle arietin.* Or, ℞ *maſtich. thuris, aloes, ſang. dracon. ſarcocollæ, bol. Armen. gypſi, gallar. an.* ʒij. *ichthyocollæ & taurocollæ in aceto diſſolut. an.* ʒij. *malaxentur, & fiat Emplaſtr.* Spread ſome one of theſe upon Leather, and apply it with ſome convenient Truſs; of which ſome are made of Dimity or courſe *Holland*, others of Whale-bone, Steel, *&c.* Thoſe made of Dimity have Boulſters ſtuft with Cotton for one or both Groins, with two Straps to come betwixt the Legs, and faſtened behind or to the Boulſters by Claſps or Points. Thoſe that are deſigned for the *Bubonocele* have a couple of Straps tacked to the end of the Boulſter, and, paſſing betwixt, are faſtned with Points behind. Theſe Truſſes are proper for Infants and tender bodies, where the Rupture is recent, and for the moſt part made by Relaxation. They are neceſſary in the Cure of Ruptures in people of years, and have always ſerved my purpoſe in the Cure of Children. There is great care required in the putting them on and wearing them. In Children it is the work of Nurſes or Maid-ſervants, who frequently tie them too ſlack about the Loyns, and too ſtreight betwixt the Legs; by which negligence they bring the Truſs over the Buttock, or elſe permit the Rupture to ſlide down under the Boulſter into the *Scrotum*: all which Errors, though they be forewarned, yet they do often commit, and thereby the Cure is delayed, and imputed to the Ignorance or Neglect of the Chirurgeon. To avoid which, we are ſometimes neceſſitated to put them on Straps over the Shoulders, ſuch as Labourers commonly wear to keep up their Breeches. Nor indeed are Children only ſufferers in this caſe, for people of full age, by reaſon of careleſneſs in putting on and wearing their Truſſes, permit ſmall *Herniæ* by Relaxation in *Bubonocele* to increaſe and ſlide down *in Scrotum*. To prevent which in Men, I commonly order a Bag-truſs to be faſtned near the Boulſter, by which the *Scrotum* is tucked up, and rendred the leſs capable of receiving the prolapſed *Omentum* or Inteſtine. In Women, through ignorance and ſhyneſs in conſulting, ſmall *Herniæ in Inguine* do alſo increaſe to a great bulk: in which caſe a hollow Boulſter-truſs may be fitted proportionably to the Rupture, or a Bag-truſs, to retain it up. In Men, through the often deſcent of the Bowels, the Eruption is made ſome times ſo large, that the Inteſtines do their office in the *Scrotum* with as little diſturbance as if they were in the Belly: in which caſe a Bag-truſs is to be proportioned, with a hole for the *Penis* to paſs through; which being put on whilſt the Patient is in bed, and in a declining poſture, will much hinder the prolapſe of the Bowels, and eaſe the Patient much in his going abroad about his affairs; and by the continuance of the Chirurgeon and his endeavours the Rupture may be reſtored to a good condition. Theſe ſorts of Truſſes are well made by Mr. *Syms* in *Bell-alley* near *Temple-Bar*.

There are other ſorts of Truſſes made of Whale-bone. The ſtuffing of the Boulſter is placed upon Cork, which will ſit firm upon Children and Youth. There are others made of thin *Laminæ* of Tin and Steel, with and without Joynts, which do ſit eaſily about the Loyns: they have alſo Boulſters, that, by virtue of Worms and Screws fixed in them, do ſit cloſer or more diſtant, and retain the Rupture up without preſſing upon the Spermatick Veſſels or *Os pubis*.

bis. They are useful in old *Herniæ.* These are made by Mr. *Smith,* a *Scotchman,* who lives near *Fleet-bridge.* He is the most ingenious man in that work, and maketh the best Trusses for the retaining the *Hernia umbilicalis* within its bounds. But in great fat Bellies we find it often necessary to put them on a Bracer to encompass the Belly, which may be laced behind or on one side, to bear part of its weight.

Having thus far provided for the retaining the *Hernia* within its bounds, you ought to have the Hair shaved, if there be any, and apply Agglutinatives with good Bandage. If the Boulster sit uneasie, a Quilt may be made to lie under it, or a Compress of brown Paper soak'd in *aqua fabrorum* wherein some Astringents have been boiled; by which your Truss will sit the easier, and retain the relaxed or torn Parts, and thereby they may be the sooner agglutinated.

Our next consideration will be matter of Diet and manner of living. Their Diet ought to be sparing, but of good nourishment, as Mutton, Veal, Lamb, Pullet, Chicken and the like; avoiding all Herbage, Fruit, Fish, and White-meats, such as may ingender Crudities. Their Bread ought to be of Wheat, with carminative Seeds in it. The confected *semina carui, coriandri, fœniculi,* and the like, are commended after Dinner and at other times to further Digestion. Their Drink a red Wine with a little Water wherein gads of Steel have been quenched; or Ale wherein some of the specifick Plants have been infused.

Rest is of great advantage in the Cure of these *Herniæ. Fabritius Hildanus* and others who have writ of this Disease will tell you, that some have been cured of great Ruptures by keeping their bed upon some accident of a Fracture, or fit of the Gout, when before their best endeavours in the Cure signified nothing. In consideration of which they forbid all manner of Exercise; and advise them that, whilst they keep their beds, they should often feel with their hands about the Part affected, principally in case of any sudden Sneezing or violent Coughing, and especially in easing nature by Stool, that, if any Relapse happen, it may be helped. But that you may the better avoid such Accidents, you ought to keep their Bodies soluble by Clysters, Suppositories, or lenient Electuaries. Where the pituitous Humours abound, they require sometime also to be purged; for which I refer you to the Chapter of *Oedema.* After it may be proper to prescribe some Agglutinatives; and they are either simple, or compound.

The simple are reckoned among the Vulnerary Plants; not all of them, but such as have a moderate Astringency, and are without remarkable heat or acrimony, and have specifical virtue. Such are *consolid. maj. & minor, quinquefolium, equisetum, sanicula, auricula ursi, pilosella, jacea utraque, sigill. Solomonis, tormentilla, osmunda regalis, hippoglossum, lunaria min. perfoliata, herniaria, herba trinitatis, cort. cypress. granat.* &c. The distilled water of *osmunda regalis* is commended in the Cure, so are also *pilosella, hippoglossum, lunaria,* and severally given in a Powder in a Decoction of Comfry-roots. *Perfoliata* and *herniaria* are delivered to us to be of so great virtue as to cure this Disease in few days, conditionally the Rupture be kept in by a good Bandage. They may be given as Tea; or they may be juiced or powdred, and mixt with red Wine.

The more compounded are these: ℞ *conf. ros. rub. vet. symphyti, an.* ℥j. *florum salviæ, acori, an.* ʒß. *trochisc. de carab. vel de spodio, vel è bolo,* ʒiij. *cum syr. cotoneorum, fiat Electuarium:* of which the Patient may take twice or thrice a day, drinking thereupon six ounces of this medicated Wine, ℞ *herbæ alchimillæ, ophioglossi, nummular. fragar. auricul. muris, veronic. artemisiæ, scolopendr. perfoliat.*

perfoliat. an. M. j. *virgæ aur.* M. ij. *rad. cichor. tormentill. biſtort. vincetoxici, id eſt, hirundinariæ, an.* ℥j. *perfoliat.* ℥ß. *cort. citr.* ℥jß. *ſem. aniſi, fœniculi, an.* ℥iij. *coriandri præparat. cinnamom. an.* ℥j. *flor. borraginis, bugloſſi, an.* ℥ij. *prunell. ſylveſtr.* ℥jß. *galang.* ℥ij. *paſſul. enucleat.* ℥jß. *Miſc. infund. in ſ. q. vini optimi; colatura reſervetur pro uſu.*

If after the forementioned endeavours to reduce the *Hernia*, (whether it were by reaſon it had been too long relapſed, and the Excrements grown hard and dried in the Inteſtine, or that they were ſtuffed with Crudities, or inflamed by the conſtriction in the Production, *&c.*) you do not ſucceed, you ought to conſider what the impediment is, and proceed accordingly to let bloud, purge or vomit, or put him into a *Semicupium*, keeping on his Bag-truſs the while: after which he may if occaſion require, be carried to and fro upon the back of a ſtrong man with his Head downward, by which the prolapſed Bowels are often reduced. Mr. *Smith* the Truſs-maker told me he had made ſuch an Engine by which he ſet them on their Heads, and thereby had reduced many, which could not otherwiſe be relieved.

But the aforeſaid ways, I bleſs God, have ſerved the moſt deplorable Patient labouring of theſe Diſeaſes under my hands. Yet if it ſhould ſo happen, that all endeavours of this kind prove ineffectual, and the Patient's life be threatned by frequent vomiting and inflation of the *Abdomen*, and nothing paſs through him by Stool, I would ask whether in ſuch a caſe it be not more reaſonable to offer in Conſultation the laying open the Production while there is ſtrength, than to ſuffer the Patient miſerably to periſh under the Diſeaſe. I refer it to the judicious Artiſt, there ſeeming nothing of difficulty or danger in the work; yet would not have it attempted whilſt there is hope of otherwiſe reducing it.

To perform this Operation, the Patient ought to be laid flat on his Back upon a Table or Form, and bound thereon; then an Inciſion muſt be made upon the upper part of the *Scrotum* to the Production, which requireth alſo to be divided, without touching the Inteſtines or *Omentum*: then you are to paſs in a *Cannula* (like our common Director, but as big as a large Gooſe-quill) into the Cavity under the Proceſs of the *Peritonæum* upwards, avoiding the Inteſtines; then make your Inciſion of ſuch a length as may ſerve to put your fingers into the *Scrotum*, and raiſe the Inteſtines and *Omentum*, which you are to reduce into their natural place within the Belly. They being thus reduced, you muſt ſtitch up the Wound, as is ſaid in the Wounds of the *Abdomen*, taking up with your Needle ſo much of the Production as may ſhut up the Cavity, and prohibit the relapſe of the Inteſtines. That done, cure the Wound, as is ſhewed in the Treatiſe of thoſe Wounds; it not being ſo large or dangerous as many of thoſe we have cured in the Wars.

In the farther Cure of theſe, various ways have been propoſed by Chirurgeons; *viz.* the actual and potential Cautery, alſo Puncture and Deligation of the Proceſs of the *Peritonæum*, alſo Inciſion, with or without extraction of the Teſticle. Theſe ways are not practiſed amongſt our people, they eſteeming ſuch Operations full of hazard and cruelty: yet they having been delivered to us by good Authority, I ſhall ſhew you how they are performed, & begin with that of the actual Cautery. In the effecting of which work there are required various ſorts of Buttons, ſome bigger & leſs than other. Whilſt theſe are in the fire, the Patient muſt ſtand, & hold in his breath, by which doing the Tumour *in Inguine* will be more apparent. Then it is to be circumſcribed within a triangular figure: after which the Patient being placed on his Back, preſs with your hot Cautery on the middle of that Triangle, and repeat it often, making the form of the Greek Letter Γ ſo deep till you reach to the *Membrana adipoſa*, taking

taking care you do not ſcorch the *Peritonæum*: then dreſs the burned parts with a little Salt and an Onion beat together, and afterwards digeſt and heal the Ulcer as you find propoſed in the Chapter of *Burns*, he keeping his bed till he be cured. By this method the Author propoſeth a contraction of the Skin by reaſon of the *Cicatrix*. How this will do without the wearing of a Truſs, I much ſuſpect.

Another propoſeth the reducing of the *Hernia*, and the thruſting up of the Teſticle to the *Os pubis*; then marketh the Compreſs of the Prominence made by the Teſticle, and, ſhoving it and its Veſſels out of the *Scrotum*, he burneth in the middle of that Mark (with a pointed Cautery a little curved) to the very Bone, then dreſſeth it *cum albumine ovor.* and cureth it as a burn: by which if he burneth the Bone, it muſt neceſſarily exfoliate, and unite with the Skin and fleſhy Parts over it, and hinder the prolapſe *in Scrotum*. But yet there muſt remain a *Bubonocele*, which will require a Boulſter-Truſs to prevent its ſwagging down, as is frequently incident to Women.

The way by Cauſtick is propounded by others as more eaſie. The mildeſt of them is Soap-lees boiled to a ſtone, with the addition of *ſevum vitulin.* and a fourth part of *opium* added to it at the laſt. The other are as followeth. ℞ *vitrioli uſti* ʒiij. *ſalis-ammoniaci* ʒj. *calcis vivæ, ciner. è vini fæce, an.* ʒiij. theſe muſt be bruiſed and mixed with a *lixivium è cineribus ficuum & tithymall.* then ſtrained out and boiled to a ſtone. Or, ℞ *ſalis nitri, chalcitidis, an.* ʒx. diſſolve them, and caſt away the firſt water, it being black and unfit for uſe. The ſecond Diſtillation is clear, and muſt be put into a Glaſs-bottle, in which diſſolve *arſenici albi* ʒij. *tartari albi uſti, merc. ſublimati, an.* ʒj. then put it into a copper Veſſel, and by a moderate heat conſume the humidity; the remaining *fæces* is the Cauſtick.

In order to the applying of any of theſe Cauſticks, the Part muſt be marked, and the Patient afterwards laid upon a Table, as hath been ſaid in the preceding Operations; then the Cauſtick is to be applied croſs-wiſe, an inch long and as much tranſverſe, near the *Os pubis*; which having operated to the Bone, it's ſuppoſed that Bone ſhall exfoliate, and the *Callus* ariſing from it will unite with the Ulcer in the fleſhy Pannicles and Skin, and ſtop the deſcent of the *Viſcera*: which notwithſtanding cannot prevent a *Bubonocele*. Another way is by the application of a Cauſtick *in Inguine*, then to raiſe off the Eſcar, and, taking up the *Membrana adipoſa* with a Hook, to divide it, and free the Seminal Veſſels from the Proceſs of the *Peritonæum*. Then paſs a Needle with crude Silk under it, tie it cloſe, and leaving it hanging out digeſt the Ulcer, incarn and cicatrize it; during which the Silk will have cut through, and fall off: and the Production uniting with the Wound abſolutely confirms the Cure. The Cure by Puncture is the invention of ſome of the Moderns, and is ſet down by *Ambroſe Pareus*.

There yet remain two ways of Cure by Inciſion: in order to which the Patient muſt ſtand upright, as hath already been ſaid, that the Rupture by falling down may plainly diſcover its bigneſs, and that the Part ſo ſwell'd may be incompaſſed with a circle: after which the Patient muſt be laid flat on a Table, with his Heels raiſed up, as in the forementioned caſes: then one of the Aſſiſtents ſhall preſs with his hand upon the bottom of his Belly, whilſt the Chirurgeon with his left hand raiſeth up the marked Skin as much as he can, then divideth it with his Knife long-ways down the length of the Proceſs or *Tunica vaginalis*, ſo as to open that Coat, and lay the Seminal Veſſels bare; which he is to avoid the hurting whilſt he takes up the divided Tunicle, and ſtitcheth it with the Skin ſo cloſe that the *Hernia* may be retained within the Belly from ſtarting out. Then by Agglutinatives, as *bol. Armen. ſang. dracon.*

thus, aloe, cum albumine ovi, dreſs it up, and place him in his bed. If afterwards there be occaſion to apply Digeſtives, ℞ *vitell. ovor. num.* ij. *far. tritic. thuris pulv. q. ſ.* After which you may deterge with *mundif. apii,* and incarn with ſome ſuch like Sarcotick: ℞ *terebinth. ſiccat.* ℥iij. *thuris, maſtich. ſem. fœnugræc. an.* ℥ß. *ceræ* ℥j. *ol. hyperici* ʒx. *Miſc. S. A.* Then cicatrize it as in other like Wounds.

The Empirical way is by extraction of the Teſticle: in the doing of which the Patient muſt be laid on his Back, as afore mentioned, and bound faſt upon the place: then the Inteſtines being reduced, the Aſſiſtent ſhall retain them up with his hands, whilſt the Operator maketh an oblique Mark in the Groin, to which place he thruſteth up the Teſticle; then makes an Inciſion ſo deep and large upon it, as to take it out with the ſpermatick Veſſels, which he holdeth with the one hand, while with the other he ſeparates it from the Membranes. (In all which caſes he muſt be careful not to lacerate them, for thereby he ſhall cauſe Convulſions, and haſten the death of the Patient.) That done, he maketh a Ligature above the Teſticle upon the Veſſels, and cuts it off. If there be fear of a flux of bloud, he cauterizeth the ends ſo tied: then, re-placing them within the Belly, leaving the ends of the Ligature hanging out, he ſtitcheth up the Wound, dreſſing as above-ſaid: and during the time of Cicatrizing the Ligature falls off.

In order to theſe Operations the Patient ought to be of a ſtrong Conſtitution and well habited, his Bowels emptied by Purging and Clyſters, and to be very ſparing in his Diet, at leaſt three or four days preceding the Work. But I never yet met one that would ſubmit to any of theſe ways.

The Cure of the *Bubonocele* in Women requireth its being reduced and cured as thoſe in Men, by Emplaſters and good Bandage, *&c.* as hath been already ſhewed in thoſe.

In the *Hernia umbilicalis* the Cure alſo conſiſts in the well reducing of it, and in the retaining it ſo by Agglutinatives and good Bandage. If through neglect of treating it timely, as aforeſaid, the Skin do wear thin and mortifie, you muſt dreſs it as ſuch: and after the ſeparation of the Eſcars, you muſt then endeavour to take up the *Peritonæum,* ſtitch it cloſe together, and incarn it with the reſt of the Ulcer, as hath been ſhewed: and after it is cicatrized, endeavour by good Bandage to retain it more eaſily within its bounds.

There is ſcarce any Diſeaſe little Infants are more ſubject unto than Ruptures. They are not difficult of Cure, if their Nurſes would be careful to keep their Truſſes well on: but, through their negligence therein, the Cure is frequently rendred vexatious. Therefore I ſhall begin my Obſervations with them.

1. Obſervat. AN Infant of about four months old was diſcovered to have a Swelling in the left *Inguen,* another in the Navel, and another three fingers breadth higher. That in the Groin, which we generally call *Bubonocele,* was made by Relaxation of the Inteſtine, as appeared by the noiſe it made in the time of Reduction. The other two proceeded from Wind. I took the compaſs of his Hips with a Ribbon, and the next day brought a ſoft Boulſter-Truſs of *Holland* linen, with two Straps faſtned to the Boulſter: and, having applied an *Empl. ad herniam* ſpred upon Lambskin on the Tumour in the Groin, I fitted the Boulſter to it, and reduced it, then tied it on; then paſſing the Straps between his Legs, I faſtned them with Points on each ſide behind; by which the Rupture was retained within the Boulſter, not preſſing upon the Thigh or Cod. On the Rupture of the Navel, or *Hernia umbilicalis,* I applied a mixture *pulver. thuris, maſtich. aloes,* &c. *ſang. draconis, cum albumine ovi,* and made

made a Compreſſion with an *Emplaſtr. è bolo* by a ſmall Button ſticking in the middle thereof, made of ſome ſnips of the ſame Emplaſter, by which the Emplaſter under it was retained the cloſer. On the other above the Navel I applied a Compreſs made by ſome pieces of *Emplaſtr. ad herniam*, and retained them cloſe by applying over them *Emplaſtr. è bolo.* By this method theſe *Herniæ* were cured in few weeks. For that in the Groin they had half a dozen Truſſes ſent them, for ſhift as occaſion offered; and it was cured thereby in few months.

2. Obſervat. of *Hernia inteſtinalis.*

A Child about two months old laboured of ſome Indiſpoſition of body, and was obſerved to have a Swelling in the right Cod. In preſſing upon it with my fingers, it ſeemed to me not to lie looſe in the *Scrotum:* it yielded to a moderate preſſure; and being ſomewhat reduced, the reſidue of it jerked ſuddenly up with a noiſe, which confirmed it a *Hernia inteſtinalis* by Relaxation. I took the compaſs of his Loyns to the Groin, and the next day brought him an *Emplaſtr. ad herniam* with ſome Boulſter-Truſſes. I reduced the Rupture as eaſily as I had done the day before, then applied the Emplaſter, fitted the Boulſter over it, and tied it moderately ſtreight. Theſe Truſſes had the Straps ſtitched on behind; they were brought between his Thighs, and faſtned to the upper part of the Boulſter croſs each other by Points. I ſhewed the Nurſe how they were to be put, and gave her caution leſt the Boulſter ſhould at any time gall the Thigh or *Scrotum*, or that by too ſtrict a Bandage the Hip ſhould be hurt, or by too ſlack a Bandage the *Hernia* ſhould ſlide down under the Boulſter, or whilſt it was looſe tied thoſe Straps between the Legs ſhould be tied ſo ſtreight as to bring the Bandage over his Hanches and ſlip down. Having thus forewarned her, I made my viſits the ſeldomer, as not deſiring to appear too officious; and indeed was fetched the next day to a Patient ſome miles off, where I ſtaid three weeks. At my return I made a viſit to this little one, and felt the Rupture ſlipt down into the *Scrotum* by reaſon of the ſlackneſs of the Bracer; and the Nurſe had pulled the Straps between the Thighs ſo overſtreight as to bring the Bracer down, and would not believe it could be kept up without a Bandage from the Shoulders. But I reduced the Rupture, tied it ſtreighter, ſlackened the Straps between the Thighs, and ſhewed her it could not fall over the Buttocks whilſt it was ſo tied. The next Error ſhe committed was in bracing it too ſtreight about the Hips, whereby ſhe had gauled it on the right Hip; and then ſhe complained to her Lady, that it was not poſſible to cure the Child without giving it ſome healing Drinks: ſuch and ſuch had been cured ſo in few days. To this I replied, That the Cure conſiſted in the keeping up the Rupture; that done, it would cure without Drinks: That there was but little to be given to ſuch an Infant. Yet I wiſhed them to conſult their Phyſician therein. I applied an *Emplaſtr. diachalciteos* upon the Excoriation, with two or three folds of ſoft linen over it, and braced the Bandage ſlacker: by which Dreſſings the Excoriation cured, the Nurſe became more experienced, and the Child was happily recovered in few weeks; but left not off the wearing the Truſs till the Summer following.

3. Obſervat. of *Hernia inteſtinalis.*

I was fetched to a Child half a year old having a Swelling *in Scroto* on the left ſide. It was a *Hernia inteſtinalis* by Relaxation. I reduced it eaſily, and the next day fitted it with a ſoft Boulſter-Truſs; and, having reduced it, applied *Emplaſtr. ad herniam*, put on the Bandage, and ſupplied them with more Truſſes for change, (they being apt to bepiſs them daily, ſo that, if they be not carefully attended, they are ſubject to Excoriation.) Once in four or five days I called in to ſee how the Nurſe ordered her affair; and by her diligence the Child was cured in few weeks, but continued the uſe of the Truſs till it was grown ſtronger, and had bred his Teeth.

4. Observat. of *Hernia inteſtinalis.*

A Youth aged eleven years had been ſome months diſeaſed with a Rupture before his Friends diſcovered it: through which neglect it fell into the *Scrotum*, and indiſpoſed him with Colicks. I was ſent for, and ſaw it an *Hernia inteſtinalis* on the left ſide. I endeavoured to reduce it, but could not. I then took meaſure of his Loyns, and the next morning found him in bed, and placed him on his Back, with his Hips high, *&c.* and with warm cloaths reduced the Rupture: then put him on a Boulſter-Truſs made of ſtrong *Holland*, with a couple of Straps faſtned to the lower part of the Boulſter; and having faſtened the Truſs about his Loyns with Points, I brought the Straps between his Legs, and tied them behind. Thus I retained the Rupture. The next day I made him a viſit, and ſeeing the Rupture well retained, I looſened the Bandage, applied an *Emplaſtr. ad herniam*, and braced it on again, leaving Directions with his Servant to take care in the bracing the Truſs cloſe every morning. This Patient was very active in running and playing daily; yet by the uſe of theſe Emplaſters and careful Bandage, he was cured in few months, I ſcarce making him ſix viſits the while.

5. Observat. of *Hernia inteſtinalis.*

A Child of about ſix years of age was brought out of the Country, having ſomewhile ſuffered under a *Hernia in Scroto*. He had a Truſs, but it was not well made. I laid him upon his Back, with his Heels retracted to his Hips. It did not preſently yield to a Reduction; whereupon I cauſed ſome warm cloaths to be applied, and then preſſed it moderately upward: it returned up with a murmuring noiſe. I then applied my Emplaſter and Bandage, and, having adviſed them concerning the uſe of the Truſs, I left them to proſecute the Cure, ſupplying them with Emplaſters and Bandage. About half a year after I ſaw him cured.

6. Observat.

A Youth of about nine years of age was brought to me out of the Country with a Swelling in his right Groin: it was ſuppoſed to be a *Bubonocele*, and to that purpoſe Emplaſters and Truſſes had been put on, and the Part thereby inflamed. I felt the Swelling, and, as I thought, the Teſticle which was wanting in the *Scrotum*. Upon which conſideration I forbad the uſe of the Truſs, and applied an *Emplaſtr. oxelæi:* by which the heat was removed, the Child freed of his Bandage, and the Teſticle left to fall down by degrees; which accordingly it did, and his Parents were well pleaſed.

7. Observat. of *Hernia ventoſa.*

The *Pneumatocele*, or *Hernia ventoſa*, appeareth often *in Inguine* in the *Tunica vaginalis*, and maketh a Tumour not unlike that of the Teſticle. Such a one was brought to me in the Groin of a Child of about ſeven years of age. It was as big as a Pullet's egge, ſoft, but withal ſo tenſe that it yielded little to preſſure. It had been treated by Bandage, but yielded not thereto, but became more painful. I preſcribed a Fomentation and Emplaſters, as hath been ſet down in *Flatulent Tumours*, and cauſed a ſoft Boulſter-Truſs to be put on, rather to keep it warm and retain the Dreſſings on, than to make any ſtreight Compreſſion. I treated him by internals proper in ſuch Tumours, by which he was ſome time after cured.

8. Observat. of *Hernia ventoſa.*

A Gentlewoman brought a Son to *London* with a Swelling in his left Teſticle. Several of our Profeſſion had ſeen it, but delivered no certain Judgment of it, nor preſcribed ought in order to the Cure. The Swelling was Wind gotten into the *Tunica vaginalis*, which encompaſſed the Teſticle round, ſo as I could not feel it. By reaſon of the Tumour, which was ſo tenſe that it would not yield to the preſſure of my fingers, I propoſed Diſcutients and a Bag-Truſs. They were diſſwaded from my Opinion by ſome who had rather their Friend ſhould fail of his Cure than receive it from me. Which hath ſomewhat appeared in this caſe: for two years after the Father of this Child told me he continued as I had formerly ſeen him.

A Child

A Child about two years old had one of these Tumours lying in the whole length of the Production to the Testicle, like unto the uppermost of those Bladders, which we find in Carps: and the same Wind, having raised up the *Tunica vaginalis*, made the Testicle not unlike to the lower round Bladders that are united with the forementioned upper Bladders in the same Fish. The Cure was performed by Discutients and a Bag-Truss. 9. Observat. of *Hernia ventosa.*

I was fetcht to see a Child who was (as I suppose) not two months old: it was a very small Infant, much emaciated. A Swelling had been newly discovered *in Scroto*, and supposed a Rupture: it affected the right *Inguen* down into the *Tunica vaginalis*. The Tunicle of the other Testicle was likewise distended. And the next day, when I brought a Bag-Truss, I found that *Inguen* also affected with the same Disease. Whilst the Infant cried, the Tumour was much; but by an easie pressure with warm cloaths it lessened. I designed a Fomentation: but the weakness of the Child, together with its frowardness, deterred me. Whereupon I applied *Emplastr. è cymino* over the *Scrotum* and *Inguina*, and put on the Bag-Truss. The next day I met the Physicians, took off the Truss and Emplasters, and shewed them that it was a *Hernia ventosa*, not capable of Reduction nor of other Bandage. There was also a *Hernia umbilicalis*, which was likewise from Wind, which I treated as hath been shewed in the first Observation. The Physicians resolved the Milk should be changed: upon doing of which the Child began to thrive. But this Nurse not keeping the Child very dry, the Piss fretted the Thighs and Cod: upon which account I put on a *Diachalciteos* Emplaster, and renewed it daily. It not only cured the Excoriations, but also supplied the place of the other Plaister. During the Cure, I observed that upon good Bandage the Tumour appeared very inconsiderable, and some times would be quite discussed: but then through neglect in bracing the Truss close, it would appear very big. The last time I saw the Child it was grown fat, and the Flatulency seemingly discussed: but a Rupture appeared in both Groins. Upon which account a double Boulster-Truss was put on, whereby it is kept up, and in a hopeful way of Cure. 10 Observat. of *Hernia ventosa.*

A Man of about thirty years of age, of a full Body, having some time a Swelling in his left Groin, consulted me. I declared it a *Hernia inguinalis*, and advised the use of a Boulster-Truss, which accordingly I brought the next day, with an *Emplastr. ad herniam*; which, after I had shaved the Hair, I put on, and left him Directions how to wear it. He carefully observing the Direction, it was in some months happily cured. 11. Observat. of *Bubonocele.*

A Man of a full Body, by a Fall in riding, bruised his left *Inguen* and that side of the *Scrotum* against the Pummel of his Saddle, by reason whereof a Rupture was made in his Groin, and much bloud was extravasated in the *Inguen* and *Scrotum* to the very Præpuce. It was too late to apply Repellents, therefore I prescribed this following Fomentation: ℞ *summit. majoranæ, absinth. flor. cham. sambuci, an.* ℥vj. *flor. ros. rub. balaust. an.* Mß. *nuc. cupress. bacc. myrtill. sumach, an.* ℥iß. *coq. in vino austero, addendo in fine sp. vini* ℥iv. *fiat Fotus.* A Cataplasm was also made thus: ℞ *farinæ fabar.* ℔ß. *furfuris tritici* M. j. *flor. cham. sambuci pulv. an.* ℥j. *sem. anis. fœnic. pulv. an.* ℥ij. These were boiled with some of the Fomentation, and towards the latter end some Spirit of Wine, *mel. commun. ol. rutac.* which was applied upon the diseased Parts with a Bag-Truss. We let the Patient bloud, prescribed him Clysters, and keeping of his bed during the Cure. This method of Dressing continued till the Swellings were discussed: then I shaved the Hair, and applied to the Groin a mixture of *Emplastr. Paracels. & diachalciteos*, with a soft Boulster-Truss, to which a Bag was fitted for the *Scrotum*, to retain the Dressings on. Some few days after, observing 12. Observat. of *Bubonocele.*

observing that the *Scrotum* was over-moistned as in an *Anasarca*, which hindred the corrugation of it, I applied *Emplastr. diasulphur.* by which the Humour was dried up. After the tenderness of the Groin was removed, I applied *Emplastr. ad herniam*, with a Quilt under the Boulster, and braced it streighter; then, having caused a less Bag to be stitched on to retain the *Scrotum*, I gave him leave to sit up. His Rupture having been reduced from the first night I saw it, there was little doubt but his lying in bed had disposed it to Cure. Indeed from that time I heard no more of it; but he continued the wearing his Truss longer.

13. Observat. of *Bubonocele.*

I was sent for to one of about thirty six years years old, of a full Body: he complained of a Swelling in his left Groin. It was a *Bubonocele*, and, by the manner of reducing it, seemed to be of the *Omentum*. I applied an *Emplastr. ad herniam* with a Boulster-Truss, and advised him how to govern it. I heard not from him again in five or six years; about which time being sent for I found him in bed, bemoaning himself that his Rupture was fallen into the *Scrotum*, and he could not reduce it. I felt it lie unequally in the *Scrotum*. He had, it seemed, neglected the bracing of the Truss while it lay *in Inguine*, and so it happened that in progress of time it slipped down under the Truss; upon which he consulted some, who put him on a Steel-Truss: but that pinching and gauling, he caused others to be made, of which he shewed me at least half a dozen; but they all hurt him, and did not keep his Rupture from falling down. But now it was so great, that he could not reduce it but with warm cloaths: which being done, I fitted to it a Boulster-Truss with a Quilt and Bag. To those Excoriations occasioned by his Steel-Truss I applied *Emplastr. óxelæi* spred upon course linen, which soon cured them; and if his occasions would have permitted him to have kept his bed, he might have been restored to a better condition: but this served his turn as a palliative Cure.

14. Observat. of *Bubonocele.*

A Man of about 30 years of age, of a healthy Constitution, came to me with a *Bubonocele*. I advised him the wearing a Boulster-Truss with an Emplaster under it: which for some time he did with much ease; but afterwards became more secure and careless in the bracing it, upon which the *Omentum* slid down half way into the *Scrotum*. It being yet within the Process, I easily reduced it, and applied a fresh Emplaster, and supplied him with more and new Trusses. His affairs would not permit him to stay within doors, yet by his well ordering it he was cured in a few months, and for a trial he left off wearing the Truss three or four days: but, having been used to it, he could not be without it; so that he continued the use of it, but without the Bag or Quilt.

15 Observat. of *Bubonocele.*

Another of that age, but not of so good a Habit of body, being diseased with a *Bubonocele*, had for some time worn a Steel-Truss: but the *Hernia* slid down *in Scrotum* notwithstanding, though often reduced, and the Truss braced more close. Upon an extraordinary relapse, when endeavours of his own failed, I was sent for, and upon examination found the Intestine and *Omentum* both *in Scroto*. I could not reduce them by warm cloaths, therefore prescribed him a Clyster, & after it a Fomentation, Cataplasm, & Bag-Truss. The next morning I fomented the Part again, and, placing him in a convenient posture, reduced the Rupture; then shaved the Hair, and applied an *Emplastr. ad herniam*, with a Compress made of brown Paper which had been all night soaked in an astringent Decoction, and fastened thereon a Boulster-Truss, with a Bag fitted to it, for to bear up the *Scrotum*, that, in case the Rupture should slip downwards, yet it should meet with a check. Having thus by Bandage trussed it up, I advised him to keep his bed some days, at least till the Excoriations which the Steel-Truss had made in his Hips were cured. During which his Diet was slender, & his body kept soluble by lenient *Bolus*'s, and consolidating

Drinks

Drinks were prescribed him. He was one that had no great imployment abroad, so was perswaded to keep his bed the longer; during which the lacerated Parts did unite, and he was cured.

16. Observat. of *Hernia intestinalis.*

One Summer, whilst I attended the King at *Hampton-Court*, an Officer belonging to the Larder, a man of above sixty years of age, having been long afflicted with a *Hernia intestinalis*, which frequently slipt into the *Scrotum*, had it then fallen down past his skill of Reduction. I, finding him vomiting and in a Fever, endeavoured by warm cloaths to reduce it, but could not. I therefore presently caused a Clyster to be given him of fat Broth with a little Salt in it, and applied a Fomentation made of the same Broth, and at length, putting him in a declining posture, I reduced the Rupture, and put on his Truss with a Compress under the Boulster; by which I retained the Rupture up. I would have prescribed him other helps, but he was satisfied that it was reduced. After two or three days he went abroad again, and, for ought I know, is yet alive.

17. Observat. of *Hernia.*

A person having been long afflicted with a *Hernia* in *France*, through ill fitting of Trusses had it much increased, till at length he threw them off, as not only useless, but painful to him. The Rupture was so large, that the Intestines did their office in the *Scrotum* without Reduction. But the weight of them was uneasie, and often accompanied with Colicks, and would by degrees have proceeded to worse inconvenience. I helped it by the palliative way of a Bag-Truss, with a perforation for his *Penis*. This sustained the weight, and enabled him to follow his occasions without farther trouble.

In some people I have seen the Ruptures so great that they have not been able to go; yet not any of them would admit of the most probable of the forementioned Operations, but contented themselves with such accommodation as a Bag-Truss would afford them.

18. Observat.

A young Woman, after hard Labour, had a Rupture in her left Groin. I supplied her with a Boulster-Truss with one Strap and Emplaster, by which she was cured, or at least palliated. In others, where they have not timely consulted, whether through ignorance or shame, they have increased to a greater bigness, and have made in progress of time such a swagging Tumour as became extreamly troublesome to truss up.

19. Observat. of *Hernia umbilicalis.*

One of about thirty years of age, of a gross fat Body, laboured of a *Hernia umbilicalis* about the breadth of the palm of a hand. He had worn the common Navel-Trusses; but they, not sitting steady upon the diseased Part, pinched him sometimes in one place, sometimes in another, and did not retain the Rupture. I being advised with, and considering his Belly very great, and likely to suffer greater Ruptions, if the weight of it were not timely born up, perswaded him to permit a Bracer to be made to lace in his whole Belly, under which a Boulster might be placed on the Navel. I took measure of it, and fitted him with such a one as reached from the *Pubes* to the *Cartilago ensiformis*, and laced behind. Under this I applied an *Emplastr. ad herniam* with a quilted Boulster, which was worked upon Sole-leather: this was tacked to the Bracer. In some others I have made a Bandage over that Bracer; but here it was needless.

20. Observat. of *Hernia.*

One had three *Herniæ* besides that of the Navel, *viz.* one in each Groin, whereof the one descended *in Scrotum*, and the other not; the third lay on the left side of his Belly, raising up a Tumour under the Skin like half an Apple. The *Herniæ in Inguinibus* were kept up by a Steel-Truss with a double Boulster, to which a Bag was tucked to retain the *Scrotum*. To that on the side of the Belly was applied an *Emplastr. ad herniam*, with a Compress in the middle of it, made of some folds of the same Emplaster, and a quilted Boulster over it.

it. To the Navel there was an *Emplaſtr. ad herniam* applied, and ſuch a like Boulſter as was uſed in the like caſe in the former Obſervation of a *Hernia umbilicalis*: and, to retain theſe cloſe, a Bracer was fitted to the Belly with Straps, which went from the lower part of it between the Legs, and faſtned behind, where the Bracer was laced. This perſon being fat was alſo gauled between the wrinkles of his Belly, which was for ſome time dreſſed daily with Epuloticks.

21. Obſervat. of *Hernia umbilicalis.*

A Perſon of quality, of a full Body, having been ſometime ſubject to a *Hernia umbilicalis*, which through defect in Bandage increaſed much, ſo that the Skin was excoriated by the unequal ſitting of the quilted Boulſter, I was conſulted. The Rupture in the *Peritonæum* was great, and the *Omentum* and Inteſtines had made their way out to the external Skin of the *Abdomen*, ſo that between them and the Boulſter it was worn very thin. The Excoriation was dreſt with Epuloticks, as *unguent. tutiæ*, &c. and a ſoft Compreſs applied between the Quilt and Emplaſter. A Belly-piece was made to bear the weight, and retain the Compreſſion. After this was cured, Mr. *Smith* was adviſed with. He made a Boulſter with a Bracer to ſit under the Belly-piece, which retained the Rupture, and the Patient went abroad daily. But one day, whilſt he was about his affairs, the Boulſter ſlipt off, and the Inteſtines ſtarted out between the Muſcle and external Skin, ſo that he was brought to his Lodgings very ill. Phyſicians were conſulted, and I was ſent for, and reduced it with a warm cloath in their preſence, and an Emplaſter and Bracer were put on. From which time he hath not been ſo ſubject to a Relapſe.

A TREATISE

A TREATISE OF ULCERS.

PLACES.

OF

TREATISE

A

OF ULCERS.

The Second Book.

CHAP. I.

Of Ulcers in general.

AN *ULCER* is a Solution of continuity in a ſoft Part made by Eroſion with loſs of ſubſtance, which loſs is in this Deſcription preſumed to be the effect of the Eroſion: for if it be the effect of the Wound, as a piece of fleſh being cut out, *&c.* it is not immediately an Ulcer, nor doth it deſerve that name properly, till by ill handling there do fall upon it corroſive Humours, which cauſe a farther diminution of the ſubſtance: for till then the Digeſtion and Matter there produced do not alter the name, but continue the appellation of a Wound; but having once loſt part of its natural fleſh by ſuch Eroſion, though preternatural do ariſe in the room of it much more in quantity than what was loſt, as *Fungus*, &c. yet the name of *Ulcer* remains. Definition.

To this Ulcer many Accidents may happen, and eſpecially Tumours of all ſorts: but theſe are not parts of the Ulcer, being ſeparable from it; for they may be taken away, and the Ulcer remain. The ſubject of an Ulcer is chiefly Fleſh, eſpecially in the larger ſence of the word, as it ſignifies Membranes, Tendons, Guts, Bladder, *&c.* When an Eroſion happens in a Bone, it is commonly called *Caries*.

For the *Differences* of Ulcers, ſome are more proper, by ſome Writers called *eſſential*; others accidental. The more proper, or, as ſome call them, eſſential, are taken from the form of the Ulcer and efficient Cauſe; as from the figure, magnitude, equality and inequality, and Part affected. From the Figure; they are ſtraight, oblique, round, or crooked. From the Magnitude; ſome are great, others ſmall, ſuperficial, deep, long, ſhort, broad, and narrow. From the Equality and inequality: thoſe are equal in which the Fleſh is alike plain; unequal, when it is corroded more in one place than another. From the Part affected; ſome Ulcers are in the Fleſh, others in the Membranes; or in this or that Part, internal, or external. Differences from the Cauſes will be beſt underſtood by viewing the Cauſes themſelves. Differences.

The accidental Differences are taken from thoſe things which are not intrinſecal to the nature or conſtitution of an Ulcer; as, to have Inflammation, Tumour or Putrefaction joyned with them, as *Phlegmon*, *Eryſipelas*, *Cancer*, *Gangræna*, *Callus*, *Varix*, or *Caries*: Alſo from the Symptoms; ſome Ulcers are painful

with Pulsation, and pricking burning heat, others with itching and excoriation: From the quality; Ulcers are malign, benign, contagious, or not; rebellious, or easie of Cure: Also from the age of the Ulcer; some are recent, others annual; also some in their state, others in their declination, only requiring Desiccation.

From these fountains the Differences and Distinctions of Ulcers do arise; the methodizing of which hath already pozed able Writers: we shall endeavour to put them into such order as shall be most plain to the young Chirurgeon.

Therefore first we shall speak of Ulcers in general: 2. of a Simple Ulcer: 3. of Ulcers with *Intemperies*: 4. of Ulcers with Pain: 5. of Fluxion: 6. of Ulcers with *Hypersarcosis* or superfluous flesh: 7. of Ulcers with *Caries*: 8. of Sordid Ulcers: 9. of Callous Ulcers: 10. of Ulcers called *Phagedæna* and *Dysepulota*: 11. of Ulcers with *Varix*: and, lastly, of Sinuous Ulcers. I should also treat of Fistulous Ulcers from *Gangræna* and *Sphacelus*; but they have been heretofore occasionally put into the Treatise of *Wounds*, to which I refer you.

Causes of Ulcers in general.

We shall begin with Ulcers in general, and treat first of their *Causes*; of which some are internal, others external: both are (if we speak of immediate Causes) corroding Humours, which eat away the Flesh, Membrane, *&c.*

If this corrosive quality arrive from Internal Causes, it oweth its Original to the excess of an acrid *Serum*: which *Serum* if it mixeth with any other Humour, whether Choler, Phlegm, Bloud, Melancholy, *&c.* gets a denomination from that.

These Humours, when they abound so far in the Body as to exceed that Temperament *ad justitiam* which is always necessary to health, (to which Temperament a latitude must be allowed,) are apt to separate from the whole Mass, and flow either quite out of the Body by natural Excretions, or else upon some Members of it; whether they be carried thither by their own source, or drawn by some attractive cause.

Being so cast out from the Mass of bloud, they are no longer subject to the Balsam of that, but become acrimonious and corrosive: and by how much the longer the Humour hath been extravasated, by so much the more acrid it becomes, and is the more corroding; acquiring in its degeneration a quality suitable to the Humour out of which it is engendred.

The External Causes are Poisons, corrosive and caustical Medicaments. Nor do we exclude actual Fire, Hot water, scalding Oil: to which may be referred the Contagions of Scabby, Leprous and Pocky persons, which are communicated to the Skin, and exulcerate it, and beget the like Disease.

From these diversities of Causes different sorts of Excrements flow: three sorts whereof give name to Ulcers.

1. The one is a thin serous Humour, called *Sanies*, by the *Greeks Ichor*; by others *Virus*, from whence they are called *virulent*. *Celsus* reckoneth two sorts of *Sanies*; the one he calleth *Ichor*, and the other *Meliceria*. They are taken notice of by *Fabricius Hildanus*. The *Ichor* is a thin whitish Gleet incident to ill-disposed Ulcers, especially amongst the Nerves and Tendons. The *Meliceria* is a thick glutinous Humour of a pale colour, and it may be yellowish, not unlike Honey, from whence it taketh its name. This also affects Ulcers of ill condition near and in the Joynts, where the Membranes and Tendons are eroded. But that which we generally in our common Chirurgery call *Sanies* is, a thin excrementitious Humour begotten from abundance of serosity in Ulcers, and rendering them humid. Of which Humours some are hot and reddish-

reddish-coloured, others cold and pale coloured. These are called *Sanious Ulcers.*

2. There is a second sort of Matter affecting Ulcers that is thick, generated of abundance of gross tough Humours, and rendering the Ulcer foul; whence it is called a *Sordid Ulcer.* This kind of *Sordes* differeth as it is white or grayish, though unequally coagulated, or else as it is blackish and fœtid.

3. The third sort of Matter is of a middle consistence between thick and thin; sometimes of a greenish or yellowish colour, and then it hath a rank smell; but for the most part it is of a white colour, and is called *Pus* or Matter. And this is supposed to proceed from a benign *Serum* flowing to the Part affected for its nutriment; which, by reason of the weakness of the Part, is not assimilated, but converted into a whitish substance, and giveth the name of a *Purulent Ulcer.*

These Differences of Excrement in a Sore are best understood by considering the Causes of their generation. For if the nutritious *Serum* be well conditioned, and the Part not affected with Wound, Tumour, or other preternatural weakness, it is by Nature converted into nourishment: but if there be a Solution of continuity, then she, failing of her first intention, acteth according to her ability, and according to the quality of the *Serum.* If the Constitution be good, and the *Serum* well-conditioned, then we find a laudable *Pus* to arise, which is white, smooth, and easie to the Part, and every day approacheth nearer and nearer to the true nutritious Juice, till by degrees the Ulcer fills up with Flesh and heals. But if it degenerate towards a sharp virulent *Serum*, then the Ulcer appeareth full of a thin *Ichor* or *Sanies*, Nature's Balsam being weak, and her heat insufficient for a due concoction of the Matter. If the Bloud grow phlegmatick, its *Serum* is so too, and groweth gross and slimy, and wanting heat, doth corrupt into a thick glutinous Matter, which we call *Sordes*; and sometimes a stinking Matter, which makes a *Putrid Ulcer.*

Signs. An Ulcer, if it be in the outward Parts, is discoverable by the sight. If it be inward, *viz.* in the Ventricle, Guts, *Uterus*, *Kidneys*, &c. it must be guessed at by the Excrements that come from it, and other Symptoms. The greatness and littleness is likewise distinguishable by the eye, if it be in the Superficies. But Ulcers that are deep require farther search of Probes, *&c.* and, if inward, must be presumed proportionable to the quantity of the Matter that floweth from them. Equality and Inequality are also judged by the view; so Sinuosity and *Caries* by Probing.

Sanious Ulcers are known by the undigested *Serum* that gleets from them: and if the Gleet be corrosive, we find the flesh waste apace. If that Erosion be with jagged and callous Lips, it is *Phagedæna*, or at least virulent. If the Matter issuing out be slimy and gross, it is a sordid; if fœtid and corrupt, it is a putrid Ulcer. If it be only superficially corrosive and spreading, it is a *Herpes exedens.*

The nearness of a Nerve, Tendon or Ligament, is best understood by the pain, which is commonly acute. If a Nerve lye near, and cause pain, it is apt to contract the Lim, or cause Convulsion. An Artery if near, is discovered by Pulsation.

Prognostick. To make a right *Prognostick* in the Cure of Ulcers, we ought first to observe well the greatness of the Disease, and what strength the Patient hath to overcome it: for if that be deficient, our endeavours to cure them will prove vain.

The greatness of the Disease is known, either by the quality of the Part affected, or by the depth or other conditions of the Ulcer.

As

As to the quality of the Part: Thoſe in the Skin are not dangerous, nor difficult of Cure, but as they are accompanied with *Intemperies*. Ulcers in the Emunctories, by reaſon of the great Veſſels, may be dangerous, and through moiſture of the place are difficult of Cure. Thoſe near any principal Part are not without danger, for that by their penetration the neighbouring *Viſcera* may ſuffer. Ulcers in the Muſcles of the Spine of the back and in great Joynts are of great danger and hard Cure: amongſt the Tendons and Bones of the Hands and Feet they are painful, by reaſon of their exquiſite ſenſe, and of difficult Cure.

The depth and largeneſs of the Ulcer makes the Cure hazardous: for in great and wide Ulcers the native heat is much weakned; and if they penetrate under any great Artery, Nerve or Tendon, that you cannot ſafely lay them open, the Cure muſt needs be ſlow, and the great diſcharge of Matter may exhauſt the Spirits of the Patient.

The Condition of the Ulcer is of great moment in Prognoſtick: where we are to conſider both the quantity and the quality of the Humour flowing to it. If it be in a depending Part, and the Body plethorick, the very multitude of Humours (though otherwiſe not bad) is a ſufficient impediment of a Cure: ſo alſo if the quality be amiſs, though the quantity be not great. For when the Ulcer is accompanied with a dry *Intemperies*, it frequently eludes your Medicines. The caſe is as bad when Ulcers have continued ſo long as to bring an habitual Dyſcraſy upon the Part: as we ſee in the *Noma* and annual Ulcers, which are either not cured at all, or with danger to the life of the Patient. A degree beyond theſe are the Phagedænical Ulcers, and worſt of all the Cancerous and Sphacelous: of all which in their due places.

Cure. In the *Cure* of Ulcers in general, we ſhall conſider the Ulcer firſt as it is ſimple, with Solution of continuity and Eroſion; then as it is compounded, and hath other Symptoms or Indiſpoſition joyned with it.

The Simple Ulcer, as it conſiſteth in a Solution of continuity, requireth Union; and as it hath loſt of ſubſtance, Reſtauration: and this is effected by Exſiccation; for ſo long as the Ulcer continueth ſanious or ſordid, it cannot heal: therefore in ſuch caſes Digeſtion or Deterſion are required.

The loſs of ſubſtance is either of Skin or Fleſh. If only the Skin be wanting, the Fleſh is ſo to be dried with Medicaments, as the Juices coming thither may be hardened into a callous ſubſtance reſembling Skin; for that it is a ſpermatick Part, and cannot be regenerated. If the Fleſh be wanting, it muſt be renewed: which work is performed by the benefit of Nature out of a part of that bloud which was deſigned for the nouriſhment of that Member. But foraſmuch as in the generation of Fleſh in an Ulcer there is a twofold Excrement ſeparated, the one thin, the other thick; the thin, as I ſaid, requireth to be dried up, and the thick to be deterged.

But in the Cure of Compound Ulcers many Indications are requiſite, according to the variety of Cauſes and Symptoms which attend them. In the application of Medicaments to thoſe Ulcers you ought to conſider their beginning, augment, ſtate, and declination. In the beginning the *Sanies* is crude and wateriſh, and requireth the benefit of Concoction, whereby it may be made thicker, and turned into good Matter; in which caſe Suppuratives are of uſe: which is not allowable in putrid Ulcers, for in that caſe they increaſe Putrefaction; and in purulent ones alſo they render the Ulcer more lax, & at length ſordid. If the indiſpoſition of the Ulcer be cauſed meerly by the pain, Suppuratives are convenient; for by their digeſtive and lenient quality they mitigate the pain, and thereby remove the Cauſe: which Suppuratives are to be continued till the Matter be well concocted. And for this reaſon it is we uſe them

them in the beginning, leſt the extravaſated Humours ſhould corrupt, and ſtir up pain and Inflammation. In the Augment, when the Matter is leſs in quantity and thicker, we uſe Detergents to cleanſe it. In the State, when the Ulcer is well cleanſed, it may be reaſonable to uſe Sarcoticks: and in the Declination, as the Ulcer fills with Fleſh, we do our endeavours by Epuloticks to cicatrize it.

But if the Ulcer labour under any Diſtemper or Symptom, whether it be internal or external, as Influx of ſharp corroſive Humours, whether they abound in the whole Habit of body, or affect only the Part it ſelf; they are all to be removed before you can hope for Cure. The conſideration of which indicateth many Intentions: we ſhall reduce them to four heads. The firſt ſhall be of a regulation in Diet, and the other Non-naturals: the ſecond of Evacuation, Revulſion, and Derivation of the antecedent Matter: the third ſhall have a regard to the Part in which the Ulcer is ſeated, to ſtrengthen it againſt the Influx: and the fourth and laſt treateth of a due application of Medicines to the Ulcer it ſelf.

1. To ſatisfie the Firſt Intention, their Diet ſhall be proportioned to the ſtrength of the Patient, according as the Humours are peccant in quantity or quality, and abound in the whole Body, or in ſome particular Part; that their heat and acrimony may be contemperated. To which purpoſe there is regard to be had that the Air be good, and their Exerciſe, Paſſions of the mind, *&c.* be moderated, according as hath been ſaid, in the former Treatiſe, of *Tumours in general.*

2. The ſecond Intention conſiſteth of Evacuation, Revulſion, and Derivation of the Humours. If they abound in quantity, or offend through their evil quality, it may be made either by Bleeding, if their ſtrength permit, and other things be conſentaneous, which alſo makes Revulſion; or by Purging or Vomiting.

Derivation is always made in the remote Parts, and according to the rectitude of the Veſſels, either by opening a Vein by Lancet, or by the application of Leeches, Cupping-glaſſes, Bliſtering-plaiſters, Friction, Binding, *&c.* for which I refer you to the Treatiſe of *Tumours.*

3. The Third Intention hath regard to the weakneſs and *Intemperies* of the Part affected: to which purpoſe the Humours may be intercepted in their courſe by the application of aſtringent and repellent Medicaments on the ſound Parts above the Ulcer, in the nature of Defenſatives. If the Member be dependent, the raiſing of it up, and placing it equal with or higher than the reſt of the Body, may be of great advantage: the Influx may alſo be reſtrained, and the Part ſtrengthened by expulſive Bandage. We may alſo by Alteratives correct their acrimony, and, if the Humours be too ſerous, incraſſate them, or, if otherwiſe they offend, rectifie them by their contraries. How farther to reſiſt the various Symptoms attending Ulcers ſhall be ſet down in the particular Cure of each ſeveral Species.

4. The Fourth Intention is in curing the Ulcer it ſelf; which is, as I have already ſaid, by drying up the excrementitious ſerous Humour, and deterging the more groſs. The Medicaments proper thereto, with the method in applying them, ſhall be treated of in the particular Cure of each Ulcer, to which I haſten.

CHAP.

Chap. II.

Of a Simple Ulcer.

Deſcription. A *Simple Ulcer* is a Solution of Continuity with Eroſion, having no other Symptom or remarkable Affection joyned with it. Of theſe, Authors

Kinds. make two kinds; the one only with Skin off, and the other with the loſs of Skin and ſome part of the Fleſh. As they call the firſt *planum* or equal, ſo they call this latter *cavum*. The former is inconſiderable: the Cure of the latter I ſhall here deliver.

Cure. In the doing of which two things offer themſelves: the one is the generation of Fleſh, to fill up that Cavity; and the other is the making a *Cicatrix*, to unite the ſeparated Lips of the Ulcer.

To the proſecution of the firſt Intention, in reſtoring the loſt Fleſh, it is neceſſary that the Part affected be free from diſtemper: for the generation of Fleſh is the work of Nature, and her ſtrength conſiſts in the juſt temperament of the Part; which being ſo, our endeavour ought to be, that the *Succus nutritius*, whereof the Fleſh is generated, be good, & that it flow moderately into the Part affected. To which purpoſe a good Diet muſt here alſo be obſerved, with a regulation of the Non-naturals; that the Air be temperate, Exerciſe moderate, and in ſome caſes none at all. In Sleeping and watching a mediocrity ought to be obſerved; natural Evacuations are to be continued, and the Quiet of the mind to be preſerved. If theſe things be duly obſerved, and the tone of the ulcerated Part preſerved by the moderate inflowing of good Juices, and the Matter in the Ulcer well digeſted, it is then capable of being healed: but if the Ulcer be too dry, moiſt, or crude and undigeſted, it cannot incarn. Therefore it behoves that we conſider the temper of the Part ulcerated, and the Excrements flowing thereout, and thence take indication whether to uſe Suppuratives or Detergents, and when Sarcoticks are convenient, or one more than another. Suppuratives ought to be of a lenient quality, temperately hot and moiſt, proportioned to the Habit of body, as it is weak or ſtrong, and to the temper of the Part they are to be applied unto. The common Digeſtive is *terebinthina* in tender bodies, with *far. tritici*, a little *crocus pulv. cum vitell. ovi*. In drier bodies we add *far. hordei, fabar. colophon. thus, pulv. ſem. fœnugræci*: to which we ſometimes add *mel. roſat. & ſyr. de roſ. ſicc. Unguent. baſilicon* is not inferiour to any. Theſe Medicaments ought to be of a moderate conſiſtence: not too liquid, leſt they make the Fleſh too lax, or run off the Pledgits, and leave them uneaſie to the Sore. For the ſame reaſon your Medicaments are not to be of too hard a conſiſtence. The deeper Ulcers may admit of the more liquid, that they may reach to the bottom. They are to be uſed upon Lint in the form of Pledgits, Doſſils, or Tents; and over them may be applied Refrigerants, to contemperate the heat of the Part, and reſiſt the Fluxion.

Suppuratives are of no longer uſe than till the Matter be well digeſted; for through the too long uſe of them the Ulcer may be made ſordid: therefore when the Matter appears well digeſted, we mix Detergents with them, to cleanſe the Ulcer. Of the milder ſort is this: ℞ *terebinth. lot. in aq. acetoſ.* ℥iv. *ſucc. apii* ℥vj. *coq. ad conſumpt. ſucci, deinde adde vitell. unius ovi*. Such is *mundif. Paracelſi*. In theſe kind of Ulcers I have frequently digeſted, deterged and incarned by the uſe of *Merc. præcipit.* mixt with *unguent. baſilicon* more or leſs. The Ulcer deterged, (which you may know by the good condition of the Matter, together with the ruddy colour and firmneſs of Fleſh,) you may then proceed

by

by Sarcoticks. In the uſe of which you are to remember, that in the generating of Fleſh two ſorts of Excrements ariſe, the one thin, called *Sanies*, the other thick, diſtinguiſhed by the name of *Sordes*. How they diſturb the Ulcer in its healing, I have elſewhere told you, and now adviſe you that you conſider the temper of the Part, and what Senſe it hath, & fit Sarcoticks accordingly, moderately to dry and cleanſe; leſt through error therein by over-drying you conſume the Fleſh you deſigned to raiſe, or by too moiſt Applications render it corrupt. The ſeaſon of the year is herein to be obſerved: for in the hotter ſeaſon Medicaments more cooling are required, and in cold weather more heating. Therefore at ſuch times we put thicker Compreſs, and take more turns with our Rowls, than in hot weather. The Habit of body is alſo to be regarded. For in lax and tender Bodies Sarcoticks require to be moderately drying, ſuch as are *olibanum*, *thus*, *aloe*, *cort. thuris*, *far fœnugræci*, *orobi*, &c. The Compounds are, *unguent. matriſylv.* or *baſilicon magn. diapompholyg. unguent. tutiæ*, *calaminaris*: or this; ℞ *myrrhæ*, *aloes*, *an.* ʒß. *thuris* ʒj. *maſtich.* ʒß. *gum. elemi* ʒiij. *terebinth. Venet.* ʒiv. *ol. hyperici q. ſ. fiat Unguentum.* The more drying are, *rad. ireos*, *ariſtoloch. rot. far. lupinor. ſarcocoll. aſa fœtida* made up with *mel deſpumat.*

If theſe Medicaments be well proportioned to the nature of the Ulcer, the Matter will appear of good colour and conſiſtence, and in leſs quantity, and the Fleſh of a natural colour, firm, and drawing into a healing condition. But if the Medicaments were too drying, the Fleſh in the Ulcer will be pale, the Matter thin, and the Parts about heated with the diſturbance.

The Ulcer incarned, you are to endeavour to cicatrize it by drying the Fleſh into *Callus*: and foraſmuch as *Callus* is drier and harder than Fleſh, therefore your Medicaments ought to be more drying than thoſe you incarned with, and to be endued with an aſtringent Quality.

The making of this *Callus* is the work of Nature, yet is furthered by the application of Medicaments, (as I have ſaid.) If the temperament of the Part be well diſpoſed, you may obſerve the Ulcer to skin from the edges while it is filling with Fleſh within, and without the help of Epuloticks: but where the Part hath been long affected with Ulceration, it is uſually weak and out of temper, and is very difficult to cicatrize; therefore it requires Epuloticks accordingly more drying and aſtringent.

The milder cicatrizing Simples are, *bolus Armen. ſang. dracon. creta*, *pulv. oſtreorum combuſt. roſ. rub. balauſt. ſumach*, *calx lota*, *ceruſſa*, *plumb. uſtum*, *tutia.* A mixture of ſome of theſe may be ſprinkled upon the Ulcer, or a Decoction of them applied upon Lint. The ſtronger are, *ſacchar. Saturni*, *vitriol. Rom. æs uſt. ſquamæ æris*, *ferri*, *croc. Martis aſtringens.* Theſe Powders may be mixed with Unguents. Or, ℞ *unguent. calaminaris*, *Emplaſtr. griſei*, *an.* ʒj. *liniment. Arcæi* ʒß. *ſacchar. Saturn.* ℈j. *ceræ q. ſ. fiat Emplaſtrum.* Or ſome of the aboveſaid Powders may be decocted or diſſolved in proper Waters, and applied upon Lint, taking care that you do not by the uſe of them conſume the Fleſh, in ſtead of condenſing it into Skin.

The time of applying Epuloticks is, when the Fleſh is riſing up near the Lips of the Ulcer, (before it grow too high) that it may be dried to cicatrize even with it; for Nature is not wanting the while to incarn. Therefore if you defer the uſe of Epuloticks till the Fleſh be grown equal with the Skin, you will be forced to uſe Eſcaroticks, or make an unſeemly *Cicatrix*: to avoid which we generally apply Epuloticks to the edges while we are incarning the middle. For by the way you muſt take notice, that none but ill conditioned Ulcers begin to cicatrize from the middle. If the Lips of the Ulcer lie not level with the Ulcer, it will not eaſily cica-

trize: therefore in ſuch caſe you muſt make a more ſtrict Compreſſion by Bandage.

1. Obſervat. of a Simple Ulcer.

AMongſt the various and ſundry ſorts of Ulcers that happen daily under my Cure, I find it difficult to make out one Simple Ulcer, as Authors have deſcribed it to us, without other Symptom or Affects joyned to it; every Ulcer having ſomewhat of diſtemper till it be digeſted and brought into a healing condition. In which regard we ſhall call that a Simple Ulcer which hath feweſt Accidents attending it, and ſhall give you an Inſtance of one in a Gentleman, who having a ſmall inconſiderable Puſh riſen upon one of his Legs on the outſide, he not taking notice of its mattering, it adhered to his Stocking, and became ulcerated in the Skin, with a ſmall Inflammation and Swelling. I dreſſed the Ulcer with *unguent. baſilicon* upon a Pledgit of Lint, applying *Emplaſtr. oxelæi* with a ſoft Compreſs of linen over it, and rowled it up from the Small of the leg to the Gartering, adviſing him to favour his Leg what he could, by laying it ſometimes upon a Stool. Thus in two or three days it was digeſted, and freed of the Inflammation and Swelling. From that time I dreſſed it with *unguent. tutiæ Vigon.* by which I cicatrized the Ulcer to the compaſs of a ſilver Half-peny. The Patient ſuppoſing himſelf cured left off the uſe of the Bandage, and gave himſelf the liberty to walk abroad: upon which the Lips of the Ulcer grew high, and became incapable of cicatrizing that way. I therefore made a Paſte of Ceruſe with *unguent. roſat.* which with Compreſs and Bandage preſſed the Lips even with the Ulcer, and cicatrized it in three or four days, whilſt he was attending his affairs at home.

2. Obſervat. of a Simple Ulcer.

Such another was commended to my hands by Doctor *Weatherly*. The Ulcer was in the Leg, and had been very vexatious to the Patient: it was accompanied with ſome little Fluxion, enough to relax the Parts, and keep the Ulcer from digeſting, and conſequently from healing. I dreſſed it as in the former Obſervation hath been ſaid; only inſtead of a Rowler I put on a laced Stocking: by the wearing of which the Humours were reſtrained, and the Patient cured himſelf in few days by the Unguents forementioned.

CHAP.

Chap. III.

Of Ulcers with Intemperies.

IT frequently happens that Ulcers are subject to various complicated Affects: Therefore the Cure must necessarily vary accordingly. For which cause we shall now treat of Ulcers as they have Symptoms or Diseases joyned with them; and begin with those that labour under *Intemperies*, whether from corrupt Juices in the whole Body, or Imbecillity in some particular Part. Whatever it is, that Cause must be first removed, before you can hope to make good Digestion in order to the incarning or cicatrizing of the Ulcer.

Intemperies is simple, or compound. The Simple are four, hot, cold, moist, and dry: the Compound are, hot and moist, hot and dry, cold and moist, cold and dry. We shall begin our Discourse with the Hot *Intemperies*. Kinds.

A hot *Intemperies* may arise from a Fermentation of the *Serum* in the bloud, and that from ill Habit of body, ill Diet, or the like; also from heat of the Air, or keeping the Part affected too hot, by lapping too many Cloaths or Rowlers upon it, or by reason of too strict Bandage, or by the application of too sharp Medicaments. Hot *Intemperies.*

A cold *Intemperies* is caused by abundance of pituitous Humours, or by exposing the Ulcer too much to the air in the time of dressing, or by the not enough defending it in cold weather by good Compresses and Bandage, or through the application of Medicaments too cooling. Cold *Intemperies.*

A dry *Intemperies* may be occasioned by the exhausting of the natural heat, as in long chronick Diseases, Hectical indispositions, or by too slender Diet, or the like; also through defect of Aliment in the Part it self for want of use, as it frequently happens where Ulcers have long affected the Member. Dry *Intemperies.*

A moist *Intemperies* may proceed from abundance of Humours in the body, and Imbecillity of the Part affected from hard Bandage or too slabby Applications, or possibly want of Bandage. Wet and foggy weather is frequently a cause of it. Moist *Intemperies.*

If the *Intemperies* be hot, the Ulcer and Parts about it are red, and the Patient complains of heat in the Ulcer. Also the Matter is sharp, whence a pricking and burning is frequently felt, and sometimes an itching in the Part. The Cause preceding will shew the nature of the *Intemperies*. Signs of hot.

These sorts of Ulcers are relieved with cooling Medicaments, and exasperated by those that heat.

The cold *Intemperies* may be distinguished by the livid or pale colour of the Ulcer and Parts about it; the Flesh in the Ulcer is whitish and loose; the Patient also complains of cold. It finds relief by Medicaments that are heating. Signs of cold.

A moist *Intemperies* may be judged by the too much humidity in the Ulcer: and if that Humour be not acrimonious, the Flesh will be luxurious and flaccid. The great discharge of excrementitious Humours and the Habit of body will evidently discover the Cause. Signs of moist.

A dry *Intemperies* is for the most part judged by the Habit of the body, it being lean and dry; the Member or Part diseased is also dry and squalid, the Lips thin and lank, and with little moisture. Signs of dry.

By the Signs of these Simple *Intemperies* the Compound may be judged of. Prognostick.

As all Ulcers complicated with great Diseases are of difficult Cure, and therefore called Cacoethe: so these Ulcers labouring under *Intemperies*, though they be well handled, are hard of Cure, and may be truly reckoned among

the Cacoethe, malign and rebellious Ulcers. But thoſe accompanied with Siccity are the worſt; for that we are neceſſitated to neglect the Cure of the Ulcer, to ſuccour the Part affected. The Cure is alſo long in effecting, by reaſon that the whole Habit of body requires by Humectation to be altered, which is a work of time: whereas the Ulcer diſtempered with heat, cold, or moiſture, may be cured while you are removing the *Intemperies*.

Cure of a hot *Intemperies.*

THE *Cure* of theſe Ulcers conſiſts in the removing of the *Intemperies*. Therefore in the firſt place you are to conſider whether it be hot, cold, moiſt, or dry, and endeavour to reſtore the diſeaſed Part to its natural temper by its contraries; as if it be hot, treat it with Refrigerants, to the moiſt apply Deſiccants, and ſo the reſt: having care the while that you do not neglect the Cure of the Ulcer. But if it be ſo that both may not be relieved at one and the ſame time, then you are to regard that which moſt requires your help. If the Ulcer be accompanied with a hot *Intemperies*, that muſt be firſt removed by Refrigerants of an aſtringent and repellent quality, milder or ſtronger according to the greatneſs or ſmalneſs of the Diſtemper. Alſo a cooling and moiſtening Diet is to be obſerved, with regulation of the Non-naturals. If there be *Plethora*, Purging and Bleeding are neceſſary, as well for Evacuation as Revulſion. The Ulcer it ſelf requires detergent and exſiccant Remedies: But in conſideration that the hot *Intemperies* conſumes the humidity in the Ulcer, and renders it leſs moiſt, therefore theſe Ulcers are to be treated with the milder Driers, yet with regard to the greatneſs of the *Intemperies*, and the quantity of Matter the Ulcer diſcharges. The Topicks are *unguent. diapomphol. tutiæ, album, unguent. è plumbo, è calce, baſilicon*, with Præcipitate.

The external Remedies to be applied over the Part affected, to abate the heat of the *Intemperies*, may be *unguent. album camphorat. Emplaſtr. diapalm. cum ſuccis, Emplaſtr. oxelæum*, &c. *unguent. refrig. Galeni, nutritum, & populeon.* The Unguents may be applied ſimply, or made into a Cerote with white Wax. Over them may be applied cloaths dipt in *Oxycrate*, or red Wine, or Juices of *fol. plantag. polygon. lactuc. burſ. paſtoris*, with *acetum*, or red Wine, wherein have been infuſed *flor. roſ. rub. bacc. myrtill. balauſt. ſumach*, &c.

Obſervat. of an Ulcer with hot *Intemperies.*

A Reverend Divine of a good age, having laboured ſome months under an Ulcer on the inſide of his right Leg along the Shin-bone with much pain, ſent for me. The Part affected was diſtempered with great heat, and the Ulcer diſcharging a *Sanies*, endeavours had been uſed to digeſt it *cum terebinth. & vitell. ovi*, and ſuch like, unſucceſsfully. I fomented the Ulcer and Parts about with Claret-wine, and dreſſed it with two parts of *unguent. diapompholyg.* and one part of *unguent. baſilicon maj.* with Præcipitate. Upon the Lips of it I applied Pledgits ſpred with *unguent. diapomphol.* and an Emplaſter of ſome of the ſame *diapomphol.* over all, with Compreſs wrung out of the Wine, and rowled it up lightly, placing his Leg in bed as before. The next day I brought a Decoction of *fol. plantag. ſummitat. rubi, equiſeti, flor. roſ. rubr. balauſt.* to which I added ſome Wine; and while it was heating I took off the Dreſſings, and found the heat ſomewhat allay'd, and the Ulcer well diſpoſed to Digeſtion. I ſtuped the Ulcer, dreſſing the Parts about with *unguent. tutiæ mag. Vig.* and rowled it up as before. By this method the hot *Intemperies* removed, and the Ulcer digeſted: after which by the help of *unguent. deſiccativum* and the Alume-ſtone I cicatrized it firm, to the ſatisfaction of the Patient and his Relations, leaving him again to the cate of his Phyſicians Sir *Alex. F.* and Sir *Fr. P.* by whoſe order I made him a Fontanel, and ſome while after put him on a laced Stocking.

In

Cure of a cold *Intemperies.*

IN the Cure of an Ulcer with a cold *Intemperies* there is required an observance in Diet and other Non-naturals, as hath been prescribed in cold Tumours, with Purgations to evacuate the *Cacochymia,* and alterative Decoctions to attenuate and dry the Humours. Outwardly are required Medicaments heating; and, forasmuch as it is the nature of cold to streighten the Pores and harden the flesh in Ulcers, they ought also to be attenuating and rarefying. The Medicaments proper to dress the Ulcer ought to be drying and detergent. The degrees of these qualities must be taken from the distemper of the Ulcer and Part affected, as it is much or little; also from the Age of the Patient, and Season of the year; and from the greatness or smalness of the Ulcer.

The *Intemperies* of the Part we correct by Decoctions of *absinth. scabios. agrimon. salv. betonic. flor. cham. bacc. lauri, juniperi,* with the addition of Wine or *spirit. vini,* and all those Medicaments proposed in the Cure of Oedematous Tumours, applied hot with Stupes. Those proper to deterge the Ulcer are, *mundif. ex apio, mundif. Paracels. unguent. apostolor.* The Emplasters are, *diachyl. ireat. de betonica, barbarum magn. diasulphuris, flos unguentorum.* After which you may proceed with Sarcoticks and Epuloticks, as shall be said.

Observat. of an Ulcer with cold *Intemperies.*

A person of about twenty five years of age, of a gross fat Body, was vexed with an Ulcer in his right Leg. The Ulcer was large, crude and undigested, and the Lips thick, the Parts about the Ulcer pale, and yielding to impression. I fomented the Ulcer and Parts about with Wine, fill'd up the Ulcer with Præcipitate, and applied *unguent. Nicotianæ* over it, with *Emplastr. de sandyce,* Compress and Bandage, and dressed it not again till the third day. In the while I purged him with an Apozeme made with a *Decoct. polypodii, sennæ, rhabarb. agaric. sem. carthami,* to which was added *syr. de spin. cerv.* and put him into a Decoction of *sarsa, lign. guaiaci, sassafras,* &c. then provided a laced Stocking, and a Fomentation made of *absinth. hyperic. centaur. flor. cham. bacc. myrtill. ros. rubr.* and *balaust.* boiled in Wine and Water, with an addition of *spirit. vini:* after that I took off Dressings, fomented the Part affected, and dressed the Ulcer *cum unguent. Nicotianæ,* with a mixture of *pulv. præcipitat.* and *Emplastr. diachyl. ireat.* and laced on the Stocking with a good Compress under it. By which I brought the Ulcer to Digestion, flatted the Lips even, disposed it to incarn, and afterwards cicatrized the Ulcer with Pledgits pressed out of a *spir. vini* wherein was dissolved a few grains of *sacchar. Saturni.*

Cure of a moist *Intemperies.*

IN the Cure of an Ulcer with a moist *Intemperies* slabby and greasie Medicaments are to be forborn, and drying to be used: and, in consideration that the Part is weakned by the too much humidity, you are to mix Corroboratives of an astringent faculty; the Ulcer also requireth to be dried. The Medicaments ought to be proportioned according as the *Intemperies* affects the whole Body, or some particular Part, and as the Ulcer is great or small. Diet, Air, Contemperatives are also here to be considered. The simple drying Medicaments in these Ulcers are, *Litharg. auri & argenti, minium, cerussa, plumb. ust.* and the like, of which Medicaments may be made up. Or you may make choice of some of these Compounds. ℞ *plumbi usti, diapompholyg. lot. an.* ʒj. *ol. myrtill. & ceræ q. s.* or, *unguent. diapompholyg. tutiæ mag. unguent. è calce lot. unguent. nutritum, album camphorat. desiccativum rubr.* or, ℞ *cadmiæ* ʒjß. *æruginis, æris combusti, an.* ʒij. *alum. scissilis* ʒß. *ceræ novæ* ʒv. *sevi arietin. q. s. Misc. fiat Unguentum.*

If the Ulcer requires to be fomented, a Fomentation may be made of

summitat.

ſummitat. abſinth. fol. beton. flor. roſ. rubr. ſummitat. rubi, bacc. myrtill. nuc. cupreſſ. balauſt. ſumach, &c. boiled in Wine or *Oxycrate*. Alſo *aq. calcis* and *aluminoſa* are uſeful in the drying up of the humidity in the Ulcer and Parts about it.

Obſervat. of an Ulcer with moiſt *Intemperies*.

A Gentleman of a full Body, between fifty and ſixty years of age, abounding with *Cacochymia*, and ſubject to Swellings in his Legs by reaſon of the Gout, which he was frequently afflicted with, by ſome accident rubb'd the skin off his left Leg. He endeavoured the curing it by healing Medicaments, but it was thereby the more exaſperated, and ſpred larger. I, obſerving the too moiſt *Intemperies* of the Part, and the Matter cruſted about upon the ſound edges, bathed it with *aq. calcis*, dreſſed the Ulcerations with *unguent. de lithargyr.* and applied a Compreſs wrung out of the ſaid *aq. calcis* over that with good Bandage. After I had thus dreſſed him, I let him bloud in the Arm about ten ounces, and the next day purged him with half an ounce of *Elect. caryocoſtin.* But notwithſtanding theſe endeavours, I found in the taking off Dreſſings a great diſcharge of a hot ſerous Humour, which increaſed the Ulcerations much. I therefore cauſed a Fomentation to be made of ſome of the aforementioned Ingredients, to fortifie the weak Part againſt the Influx, and to dry up the Ulcer, and applied my Pledgits, ſpred with Epuloticks, ſomewhat more diſtant one from another, that the thin Humour might get out between them; then applied a Compreſs ſpred with *unguent. nutritum* over all, rowled it up equally, repeated the Purgation, & ordered him each other night ℥vj. *ſyr. de meconio in aq. papaveris rhœad.* with a little *aq. cinnamom. hordeat.* Obſerving in taking off my Dreſſings, that the Matter would in ſpite of my endeavours be here and there ſhut in by the Pledgits which lay upon the edges of the Ulcerations, I ſprinkled them with *pulv. lap. tutiæ præparat.* and forbore the uſe of Pledgits there, ſuppoſing that way to give vent to the Matter, and at the ſame time to cicatrize them, and the while dreſſed the Ulcer with Pledgits preſſed out of a ſtiptick Decoction in ſome places, and in other with *unguent. è plumbo.* But I found on the next Dreſſings that the Powder cruſted upon the edges, and by retention of the Humour cauſed Eroſion underneath. I then made a Solution of *pulp. lap. tutiæ, corn. cerv. uſt. calx lot.* &c. in a Decoction of *fol. plantag. ſalicis, ſummitat. rubi & equiſeti*, dipping little bits of fine Lawn in it, and applied Deſiccatives upon that; on the edges, *unguent. deſiccativum rubr.* mixt with *unguent. è calce lot.* in the middle I ſprinkled ſome Powders, as *boli Armen. corn. cerv. uſt.* Various endeavours were uſed; but by this laſt way the Ulceration was cured. Then a laced Stocking was put on, which reſtored the Part to its natural tone. Of this *Intemperies* you will find an Obſervation in *Herpes*, and another in the Treatiſe of *Wounds*, particularly that in the outſide of a young Nobleman's Leg, which puzled two eminent Chirurgeons as well as my ſelf. And whereever you meet it, you ſhall find difficulty.

Cure of a dry *Intemperies*.

IN the Cure of an Ulcer with dry *Intemperies*, you are to apply your endeavours more immediately to the removing the *Intemperies*, and content your ſelf the while in digeſting the Ulcer, and keeping it clean. You are here to conſider the Cauſe of the Drought; whether it were from defect of Nouriſhment in the whole Body, or in ſome particular Part, or in both. If the firſt, then a good Diet muſt be directed of ſuch meats as are of eaſie and good nutriment. In this caſe Wine is allowed to be moderately drank. In the ſecond and third caſes, you are to endeavour that the aliment be attracted into the affected Part by putting it upon action, if it may conſiſt with the Cure of the Ulcer. Otherwiſe Friction, Pitch Emplaſters, Fomentations, Embrocations, Fontanels, and

and the like, are to be used, to stir up heat in the Part affected. The Fomentations are to be applied moderately warm, and the Member to be bathed till it looks red and begins to swell: then you are to desist; for if the Member be longer fomented or chafed, you may dissipate what you attracted. The Medicaments afterwards to be applied ought to be humecting, as a mixture of Water and Oil; also such like Cerote may be applied: ℞ *succ. bismalvæ & parietariæ an.* ℥ij. *ol. amygdal. dulc.* ℥vj. *ceræ albæ q. s. fiat Ceratum.*

The while the *Intemperies* is removing, the Ulcer may be dressed with the milder Digestives, or with *unguent. basilicon* and Præcipitate; which is also a good Detergent and Sarcotick: or this; ℞ *thuris, mastich. sarcocollæ, an.* ℥j. *ol. hyperici* ℥ij. *terebinth. Ven.* ℥jß. *ceræ albæ q. s. fiat Unguentum.* In the treating of these Ulcers, you are to be careful that your Applications to the Ulcer be not too drying, lest you thereby bring the *Intemperies* again upon the Part. The Ulcer incarned, you may proceed with Epuloticks, as hath been all along delivered.

Observat. of an Ulcer with dry *Intemperies.*

A Youth of about thirteen years of age was brought out of the Country, and lodged near me. He laboured under several Ulcers in his right Leg, one especially upon an *Exostosis* on the *Os tibiæ* on the inside near the Ancle. The Ulcer was large, and of an oval figure, the Lips pale, dry and thin, the Matter little and sanious, the Leg it self emaciated and squalid; which I supposed was by the weakness of the native heat from not using of the Lim. I caused his Leg to be bathed with warm water, and dressed the Ulcers with *unguent. basilicon* and Præcipitate, applying a Cerote over all of a mixture of *unguent. dialthææ, ol. ex pedibus bovinis,* and Wax; then rowled a soft Compress on it, to retain the Dressings on and keep it warm, and ordered his Diet as above said. The lesser Ulcers digested and cured by the ordinary Epuloticks; but the larger upon the *Exostosis* would not digest for three days together with any Medicaments: which gave me cause to suspect the Bone under it to be carious, and that I should be necessitated to lay it bare: but I could not by search of my Probe feel it. I continued to nourish the Part by bathing it with emollient Decoctions and Embrocations, with *ol. ex ped. bovinis,* and gave the Patient liberty to use his Leg by setting his Foot on the ground; by which it swelled, and became more humid. After some while, when I saw the temper of the Member alter, I ordered a laced Stocking to be put on, for that I could not with a Rowler make such a Compression so near the Ancle as I would, without causing a swelling in his Foot. I dressed it with Pledgits of Lint dipt in a Solution of Tincture of Vitriol *in aq. rubi,* and made the Compression over it; by which method the Ulcer cured with a firm *Cicatrix* upon that *Exostosis.* He went well cured out of my hands, and I suppose is well to this day. These kind of Ulcers are frequently seen in Hectical and emaciated Bodies and withered Lims.

Chap. IV.

Of Ulcers with Pain.

PAin is alſo one of the Symptoms which interrupts the Cure of Ulcers, and affects the Part ſometime after the Ulcer is cured, whence various Accidents are ſtirred up, as Fever, Watching, and a Proſternation of ſpirits. Therefore it requireth our utmoſt endeavours ſpeedily to remove or mitigate it.

Cauſes. The *Cauſes* of Pain are acrid ſharp Humours corroding the Ulcer, and heating the Parts about; proceeding either from a repletion of evil Juices abounding in the Body, or through miſapplication of Medicaments in Chirurgery, as not timely digeſting the Ulcer, or from too long uſe of Abſterſives.

Signs. The Complaint of the Patient will demonſtrate the Pain, and the Symptoms will ſhew the Cauſe; whether it ariſe from want of Digeſtion or Deterſion, the Matter will teſtifie.

Cure. The removing of the Pain requireth a right diſtinguiſhing of its original Cauſe. The Habit of body is alſo to be conſidered, how it is in fault: and accordingly as there is *Plethora* or *Cacochymia*, you ought to make Evacuation by Purging, or Bleeding, or both, and uſe contemperating Juleps, Opiats, and the like. Alſo the Patient's eating and drinking ought to be regulated proportionately.

Theſe things premiſed, you are to apply your ſpeedy endeavours to remove the Pain by proper Anodynes. If the Ulcer be ſanious, it wants Digeſtion; and that is furthered by ſuch Medicaments as have a temperate heat, as we have already ſhewed. The heat in the Parts about may be mitigated by Lenients, as is before ſaid in *Tumours*, and after in *Wounds*, or by ſuch like; as the Mucilages of *ſem. cydon. pſyllii*, *althæa*, extracted in *decoct. malvar.* and *far. hordei*, *croc. & vitell. ovi*, *axung. gallin. porcin.* made into the form of a Cataplaſm, or with Wax into a Cerote, or *ceratum Galeni*, or that with *populeon:* if more cooling be required, *unguent. nutritum*, *alb. camphorat. Emplaſtr. è bolo*, &c.

If the Pain ariſe from hot acrid Humours fretting the Ulcer, it may be dreſſed with *unguent. diapompholygos*, or *unguent. è plumbo*, *unguent. tutiæ* ſimply, or mixed with *baſilicon*, with a little Præcipitate, with Compreſs wrung out of *Oxycrate*, or red Wine, whereby the heat may be contemperated, and the Part ſtrengthened to reſiſt the Influx, by which the Cure of the Ulcer may happily be effected.

If the Pain be cauſed by a ſordid Matter ſticking to the bottom of the Ulcer, and hindering tranſpiration, you cannot remove the Pain without Deterſives; of which *Merc. præcipitat.* is the beſt and mildeſt.

Pain is ſo familiar an attendant of Ulcers, as it is not eaſie to repreſent you any one without it: but in complicated Ulcers it may not poſſibly be ſo eaſie to diſtinguiſh its Cauſe, nor yet ſo directly to demonſtrate the way of relieving it, as in a Simple Ulcer, where there is no other Symptom joyned with it. Amongſt which I ſuppoſe it may appear moſt conſpicuous in Fontanels; I therefore have choſe to give you a few Inſtances of ſuch, but ſhall begin with one ariſing from an Accident.

A perſon

A Perſon of about forty years of age, of a full and ſcorbutical Body, by ſome accident broke her Shin, and endeavoured the curing of it: but it daily growing more painful, and not to be endured, I was ſent for, and, obſerving the Ulcer ſanious, propoſed Digeſtion as the only way to remove the Pain. I dreſſed the Ulcer with two parts of the common Digeſtive *ex terebinth.* and one part of *unguent. tutiæ mag.* ſpred upon a Pledgit. The Ulcer was of ſo exquiſite ſenſe, that it would ſcarce bear the Pledgit. I applied *unguent. alb. camphorat.* ſpred Emplaſter-wiſe, with a Compreſs of ſoft Linen over it, and rowled it up from the Foot to the Gartering lightly, a little to reſtrain the Influx. This method I continued three days, by which the Ulcer was pretty well digeſted, and leſs painful; but the Leg was ſubject to Fluxion: and I doubted how it would cure ſo ſuddenly as was expected without the help of a more ſteady Bandage, meaning a laced Stocking But ſhe replied, they had alway made her ſick. I then propoſed Purging. To which ſhe objected the want of convenience. I continued the dreſſing of the Ulcer as before, till it was digeſted well; then I dreſſed it with Pledgits dipt in *aq. calcis* overthwart the ends of the Ulcer, with a Pledgit of *unguent. tutiæ* in the middle, to cicatrize it from the end, and applied *unguent. deſiccativ. rub.* over them as an Emplaſter, then rowled it up; by which it cicatrized in a few days. After the Patient ſaw her ſelf ſo ſuddenly cured, ſhe became well inclined to have a laced Stocking put upon that Leg, and, finding no inconvenience by it, beſpake another for the other, and returned well ſatisfied to her houſe in the Country. 1. Obſervat.

Some months after this perſon being again in the Town was grievouſly pained with a Fontanel in her left Arm, which ſhe had kept for the ſpace of eight years; but now, not being able to eaſe her ſelf by the uſual method, ſhe threw out the two Peaſe, and endeavoured to cure it: but it became more painful, and would not heal. I, being ſent for, obſerved the Ulcer to retain the form the Peaſe had given it, by reaſon of a grayiſh viſcid ſordid Matter that covered the bottom and ſides thereof. This hindered the Tranſpiration, and ſtirred up a great heat about and in the Ulcer: the Lips grew turgid with the anguiſh, and ſo painful that ſhe could not endure the wiping the thin *Ichor* from it with a ſoft Rugin with her own hands. 2. Obſervat. of Pain from *Sordes*.

This Ulcer required Deterſion, & the beſt Anodyne had been to have filled it with Præcipitate, and to have applied Lenients over it. But her complaints put me upon the dreſſing it with ſuch Medicaments as ſhe had leaſt apprehenſion of, which were *unguent. baſilicon* with Præcipitate upon a Doſſil, which I laid in the Ulcer lightly with Pledgits of *unguent. diapomphol.* over the Lips, and *unguent. album* over all; ſhe faſtning a Cloath over it, according as it would bear. She then complained grievouſly of the pain ſhe felt by the Doſſil in the Ulcer, and was, as ſhe told me next morning, in a Fever all that night. I continued the ſame Dreſſings, only applied *Emplaſtr. è bolo* over all that Part near the Ulcer, which remitted the heat and pain thereabout; but the Ulcer was exceſſive painful for the ſpace of two hours after dreſſing: yet the Lips of the Ulcer had caſt off part of the *Sordes*, and the Ulcer it ſelf looked better after three or four days Dreſſings. The Parts without were ſo well tempered, that ſhe could bear a Compreſs and Bandage: but the Pain in the Ulcer continued for ſome hours after dreſſing, and returning again in the evening, laſted a great part of the night. Upon which conſideration I deſired her to give me leave to dreſs it with Præcipitate, aſſuring her eaſe from it. She permitting me, I dipped my Doſſil in the Præcipitate, and ſprinkled ſome of it where the *Sordes* was thickeſt. I then applied my Doſſil over it, and a Pledgit with *unguent. diapomphol.* over that, with Emplaſter and Bandage, as before, and reſolved not to open it again till the third day after;

but was called the next morning, and informed by her ſelf, that ſhe had been much eaſier ſince the dreſſing: and indeed at the next dreſſing I found a Slough come away with the Dreſſings, which was the *Sordes*. I dreſſed it with *unguent. baſilicon* and Præcipitate mixed as at firſt, with the other Applications and Bandage; and the ſecond day after dreſſing it again, and finding it well digeſted, and free from Pain, I put an Orange-Pea in the Ulcer, and continued it as a Fontanel with much eaſe.

Thus in ſcorbutically-habited ill Bodies, abounding with *Cacochymia*, we frequently ſee theſe ſimple Ulcers afflicted with ſharp Humours, which corrode them, and render them painful ſordid Ulcers; which, if not timely relieved by Deterſives and Lenients, do terminate in putrefactive Ulcers.

3. Obſervat. of Pain from Putrefaction.

A Perſon of Honour of about thirty ſix years of age, labouring under ſharp Humours, was ordered a Fontanel in her Thigh, which a Chirurgeon made, and fitted with an Orange-Pea. It grew very painful; but the Patient, ſuppoſing it ſhould be ſo, endured it ſo long till ſhe could not ſtand with it. I was ſent for, and ſaw the Thigh much ſwelled and heated with the exceſſive Pain, and the Ulcer covered with a brown *Sordes*, and a quantity of a thin Gleet iſſuing from it. I threw out the Pea, fomented the affected Part and Ulcer with Wine, filled the Ulcer with *Merc. præcipitat.* and applied *unguent. tutiæ* with Pledgits over it, with *Emplaſtr. è bolo* over all, rowling it up, and adviſing her to keep her Chamber and Pallet. The third day after I dreſſed her again: the Slough came in part away. I dreſſed it up again as before; and the third day after found the Ulcer digeſted. The pain mitigated the firſt night, and the heat went off the next dreſſing. I healed this Fontanel in few days, and made her one in her Arm.

But in ſuch indiſpoſed Bodies Pain doth not affect the Ulcers only, but the Parts alſo where they have been, after they are cured.

4. Obſervat.

A Maid of about thirty five years of age, of a ſcorbutick Habit of body, had an Iſſue made in her left Arm, which was continued running many years; but at length, whether through negligence, or from ſome other reaſon, ſhe ſuffered it to dry up. The Winter following ſhe grew very much out of order by reaſon of a great complication of ill Symptoms, of which the moſt important was an intolerable pain in that Arm and place where her Iſſue had formerly been. After various courſes of Phyſick and external applications, ſhe was in ſome meaſure relieved, and was pretty free all the following Summer: but in the Winter, *viz.* 1672. her pain returned with ſuch violence, as to afflict not only the place of the Iſſue with ſuch pains, that ſhe likened it to the cutting off of the Arm, but it ſtretched it ſelf in a while after to the whole Arm, Shoulder, yea the very Side it ſelf; ſo that many Attempts being made, the Chirurgeons in the Country opened two Iſſues on each ſide of the ſeat of the old one. Many other things were done, till at laſt ſhe came into my hands. Doctor *Walter Needham* was her Phyſician, and upon examination found her afflicted with a *Rheumatiſmus*, for which he inſtituted a convenient courſe, and judged withal that the Pain of the Part was from the uſual way Nature had taken to the old Iſſue, whither the ſharp Humours making their paſſage, and finding no vent, did diſperſe themſelves through all the branches of the Axillary Artery on that ſide, *viz.* to the Scapulary and Thoracick branches, *&c.* the Pain being every where found according to the places of their diſtribution.

To the Cure of this, beſides what was inwardly adminiſtred, it was thought requiſite to eat down deep by a Cauſtick into the place where the old Iſſue had been, and thereby to divide the Fibres of the Membrane of the *Biceps*, which lay juſt under it, and ſeemed to be the place of the principal Pain. When this was done, we divided the Eſcar, and cut it out, then filled the Opening

Opening with Præcipitate, and applied a Pledgit of *unguent. basilicon* with *ol. liliorum* upon it, and dreſſed it up. We dreſſed it every other day, till the remaining Eſcar and Slough ſeparated; then we incarned and cicatrized the Ulcer even. From the time of the Opening this her Pain ceaſed, and ſhe was well of that, but laboured under a *Rheumatiſmus* in great meaſure, it ſwelling her Thighs, Leg, Hips, and lower Belly: but by frequent Phlebotomy, Purging, and other Preſcriptions, ſhe was by my ſaid Friend happily cured.

Chap. V.

Of Ulcers with Fluxion.

BUT it rarely happens that Pain afflicts an Ulcer without Afflux of Humours: we ſhall therefore ſay ſomewhat of that, it being a great cauſe of the difficulty we meet with in the Cure of Ulcers.

What the *Cauſes* of Fluxion are, hath been delivered when I treated of *Tumours in general*, viz. the Part mittent, and Part recipient: That vicious Humours peccant in quantity or quality are either thruſt forth by the Part mittent, through the ſtrength of nature; or attracted by the Part recipient, by reaſon of heat or pain; or are moved to it by reaſon of its weakneſs, or low ſituation, which rendreth the deſcent of the Humours more eaſie. Cauſe.

An Ulcer with Afflux of Humours is diſcerned by the tumefaction of the Lips and Parts about it; and from the abundance of excrementitious Humours flowing from the Ulcer. It is alſo accompanied with Inflammation proportionably to the quality of the Humours. Signs.

All Ulcers with Fluxion are of difficult Cure, the Ulcers being thereby rendred lax and indiſpoſed with Pain, Tumour, *&c.* and by how much the greater the Influx of Humour is, ſo much the more difficult is the Cure. Prognoſtick.

In the *Cure* of this Ulcer, the Cauſe of the Fluxion is to be enquired into; whether it proceedeth from Humours peccant in quantity or quality, thruſt forth by the Part mittent upon the inferiour weak Parts, or that it was attracted to it by reaſon of heat or pain. If Heat was the Cauſe, that muſt be removed as hath been ſaid in the Chapter of a *Hot Intemperies*. If Pain was the Cauſe, you muſt endeavour to mitigate that by Lenients, as hath been ſhewed in the preceding Chapter. If Plenitude be the Cauſe, a ſlender Diet ought to be preſcribed, and Venæſection if nothing hinders, and the Body kept ſoluble by Clyſters and the like. Cure.

If the Humours offend by reaſon of their evil quality, Purgatives are proper, according to the quality of the Humour: and if they be too fluid, they muſt be incraſſated and contemperated by Alteratives, as Endive, Succory, Sorrel, Purſlane, Lettice, in Broths; alſo Barly-cream, Emulſions, Violets, Citron, Rasburies, and the like: and the Humour flowing to the weak Part may be averted by Revulſion, Interception, and Repulſion. What they are, and where they ought to be applied, you may ſee more particularly in the Treatiſe of *Tumours in general*.

The Medicaments proper to ſtrengthen the weak Part, and reſiſt the Influx, ought to be of a cold and aſtringent quality; as *fol. plantag. polygon. ſummit. rubi, equiſeti, cort. ulmi, flor. roſ. rub. bacc. myrtill. balauſt. nuc. gland. querc.*

querc. cypreſs. gallar. Some of theſe may be juiced, others powdered and mixt with Unguents, or boiled in *Oxycrate*, or red Wine, and applied with Stupes to the Part. In great Fluxion and in ſtrong Bodies *aq. aluminis* and *aq. calcis* may be of uſe; to the latter of which may be added a few grains of Sublimate.

The Unguents may be *unguent. nutritum, alb. camphorat. unguent. deſiccativ. rub. cerat. Galeni, Emplaſtr. de minio, è bolo,* &c. But foraſmuch as theſe Ulcers are frequently diſturbed by ſharp Humours impacted in the Pores, which cannot be repelled, and by their acrimony may ſtir up pain and Inflammation; you ſhall therefore have regard to the Ulcer, to digeſt and deterge it, while you outwardly reſiſt the Influx upon the Parts about it: and let your Detergents be ſuch as are more drying than in ſimple Ulcers, but with little acrimony: of which ſort you may find choice ſet down in the Chapter of the *Moiſt Intemperies*, to which I refer you. The Ulcer deterged, you may incarn with ſuch like: ℞ *terebinth. Venet.* ℥ij. *ſevi vaccini* ℥j. *plumb. uſti* ℥vj. *tutiæ præpar. corn. cerv. uſti, an.* ℥ij. *Miſc.* To which may be added *thus, ſarcocolla, reſina pin.* &c. For in the dreſſing of Ulcers the proportioning of Medicaments ought to be left to the diſcretion of the Chirurgeon, avoiding greaſie Applications in theſe Ulcers as much as may be. The Ulcer incarned, you may proceed by Epuloticks, as hath been all along ſhewed.

1. Obſervat. of an Ulcer with Fluxion.

A Maid ſervant living in a Noble Family had cut the inſide of her right Leg by a Fall upon a hot Grate-iron, and, having ſuffered about eight weeks under ill Chirurgery, was commended to my care. The Ulcer was with loſs of ſubſtance and ſanious, with ſome pituitous Swelling in the Lips and Parts about. I dreſſed it with *unguent. baſilicon* mixed with Præcipitate, as it is uſually in my Salvatory, ℥j. of it to one ounce of the Unguent. I applied over it an *Emplaſtr. diachalcit.* ſprinkled with a little *acetum*, and a Compreſs wrung out of *Oxycrate*, then rowled it up with the expulſive Bandage; the Cure indeed conſiſting mainly in the well rowling, the want of that cauſing frequently Crudity in the Ulcer. By the uſe of it both the Influx was reſtrained, and the Member ſtrengthened, and with the help of the Unguent aforeſaid it was digeſted: as the Lips flatted by virtue of Compreſſion, it incarned, and by *unguent. tutiæ* and Pledgits dipt in *aq. calcis* cicatrized in few days, without Purging or Bleeding.

2. Obſervat.

A Man about fifty years old, of a groſs Body, frequently afflicted with the Gout, and labouring then under it in his left Leg, (as I remember) was commended to an Empirick, who pretended extraordinary skill in the Cure of that Diſeaſe, but underſtood no more than what he had learned by Books. The Patient's Leg was much ſwelled with pituitous Humours, as moſt fat Bodies are that have long laboured under the Gout, and no Medicaments or Bandage were uſed to fortifie the weak Member. He began the Cure by Purging, and then proceeded by bathing his Leg in a Tub with ſome Decoction of Herbs, *&c.* The Bath might poſſibly be good; but the putting his Leg into it, as it ſeemed, ſerved but to lead the Humours more powerfully down to it, and encreaſed the Swelling. Whereupon he was again purged by ſtrong Cathartick, it was ſuppoſed *Lockyer's Pills:* he was alſo frequently vomited as roughly; but without ſucceſs, the Gout continuing, and the Leg growing more weak and ſwelled. Endeavours were uſed by Emplaſters of various ſorts, and Purgatives repeated, till the Patient's ſpirits and ſtrength were near exhauſted, the Empirick confidently promiſing a Cure thereby. But the Patient not able longer to endure his Applications, I was ſent for, and found him extreamly weak, and complaining much of Pain. I took an Emplaſter

off

off his Leg, I ſuppoſe *Emplaſtr. de ranis cum Mercurio*, or ſome Solution of Mercury with Gums; it was ſpred thick upon Leather, and lay in great wrinkles about the whole Leg: under it was great Excoriation, with Tumour and Inflammation. I cauſed ſome water to be warmed, an dwhile it was held over a Veſſel my Servant bathed it with a Sponge, to cleanſe it, and give a breathing to the Humour. I then dreſſed the Ulceration with *unguent. tutiæ*, and applied *ceratum refrigerans Galeni*, cut into pieces, to give way for the diſcharge of the Humour, and rowled the Leg from the Foot to the Knee. After I had continued this method of dreſſing a few days, mitigated the pain, and digeſted the Ulceration, I left off the uſe of the Cerote, dreſſed the Ulcer with *unguent. deſiccativ. rubr.* applied *unguent. nutritum* over all, then rowled the Member more ſtrictly, and thereby cicatrized the Ulceration, and he was free from the Gout. I ordered him a laced Stocking, and by moderate and equal lacing it reſtored the Leg to a better ſhape than it had been in many years before, and left him well recruited in his ſtrength; forewarning him again to truſt ſuch Braggers.

A Servant to a Nobleman in the Country, by a Fall upon a ſharp piece of Timber, bruiſed and cut his left Leg from the Shin-bone tranſverſe the outſide of the Calf of his leg. Through neglect in the Country it inflamed and ſwelled very much, and the Ulcer became undigeſted. He was ſent up to Town, and lodged near me. I fomented the Part affected with Wine, dreſſed the Ulcer *cum terebinth. vitell. ovi & far. hordei*, applied *Emplaſtr. è bolo*, with a Compreſs wrung out of the ſaid Fomentation, and rowled it up; then let him bloud. The next day I fomented his Leg with a Decoction of ſome of the Simples above mentioned, dreſſed his Ulcer as before, and applied an Emplaſter of *farina fabarum, pulv. roſ. rubr. balauſt. bacc. myrtill. ſumach.* decocted in Wine, adding ſome *mel commune* to it. Thus in few days the Ulcer digeſted, and the Tumour waſted. Then I deterged with the ſame Digeſtive, adding *pulv. rad. ariſtoloch. ireos, ſarcocoll. & mel roſ.* touching the Ulcer with the Vitriol-ſtone daily more or leſs, and applied *Emplaſtr. è bolo* as at firſt; then by a more ſtrict Bandage diſpoſed the Lips of the Ulcer to incarn; and by *unguent. è plumbo & deſiccativ. rubr.* I cicatrized it, and directed him a laced Stocking to be put on, and returned him to his Lord.

3. Obſervat.

CHAP.

Chap. VI.

Of Ulcers with Hyperſarcoſis.

THE ariſing of luxurious Fleſh in Ulcers ſometimes createth a difficulty in their Cure.

Cauſe. The *Cauſe* is either from abundance of ſerous Humours flowing into them; or the ignorance of the Chirurgeon, in not diſtinguiſhing the ſuperfluous Fleſh from the good, who thereupon continueth the uſe of mild Detergents or drying Medicaments.

The *Signs* are ſo evident that they need no Remarks.

Cure. The Indication of *Cure* is taken from the Cauſe. If Fluxion were the Cauſe, Purging and Bleeding may do good, and a regulation of Diet, with the uſe of ſuch Remedies as may reſiſt the Fluxion; as you may ſee in the precedi g Chapter. But if too mild Detergents or Sarcoticks cauſed the Fleſh to grow lax and ſpongy, then more powerful Driers are required, yea cathæretick or cauſtick Medicaments, as you ſee cauſe.

The milder are *ſpong. uſt. cort. granat. nuc. gallar. lapis tutiæ, alumen uſtum*; and amongſt them *Merc. præcipitat.* may well be reckoned, if uſed alone. Compounds are theſe: ℞ *nuc. gallar. cort. granat. an.* ʒij. *balauſt.* ʒj. *aluminis uſt.* ʒj. *pulver. ſubtil. Miſc.* It may be ſprinkled on the Ulcer thick, and dry Pledgits with Compreſs bound over it; or it may be boiled in red Wine, and Pledgits dipt in it and applied. *Aq. calcis* is alſo moderately drying without pain: if you add a few grains of Sublimate, it is more powerful. *Aq. lapidis medicamentoſ. aq. viridis, & Fallopii*, are more ſtrong; but by the addition of *æq. plantag.* or the like they may be made milder. The Vitriol and Alumeſtone ſerve well to this purpoſe, to keep down looſe Fleſh, and to cicatrize thoſe Ulcers which are moſt luxurious; and if they be diſcreetly uſed, will perform the work with little pain, and cicatrize theſe kind of Ulcers moſt firmly.

Obſervat. of an Ulcer with looſe Fleſh. A Gentleman of about twenty years old, of a good Habit of body, put himſelf into my hands for the Cure of an Ulcer on his right Side the breadth of the Palm of a hand. It was occaſioned by a Burn, and had been bigger. The cauſe why this remaining part of the Ulcer did not cicatrize was moſt evident, it being over-grown with looſe Fleſh. I applied Pledgits of a mixture of *unguent. baſilicon* with two parts *Ægyptiac.* upon it, with Bandage: but obſerving it not to yield to that ſo ſoon as I deſigned, I levelled it with the Cauſtick-ſtone, and after ſeparation of the Eſcar digeſted the Ulcer with *unguent. baſilicon* and *Merc. præcipitat.* and afterwards cicatrized it with ſome of the Waters above-mentioned.

Chap. VII.

Of Ulcers with Caries *in the Bones.*

A *Caries* or Rottenneſs in the Bone is frequently found in Ulcers, and ſometimes giveth riſe to them: but however it is, it alway prolongeth and rendreth the Cure of them difficult.

Cauſes. The *Cauſes* of *Caries* in the Bones are either internal, as through retention or acrimony of the Matter, or ſome occult quality, as in *Lues Venerea*, where the Bone is carious, and the Skin is whole; or in ſtrumous Ulcers near the Bones, where the Eroſion begins in the Bone it ſelf: or they are corrupted externally by the Air. Bruiſes, Wounds in the Head, through ill Chirurgery, may corrupt both Tables, *&c.* But this I never met with in any Patient of my own, or where I had power to govern. The Bone may alſo be fouled by over-ſharp Medicaments.

Signs. If the Bone be bare, its Corruption is eaſily diſcerned, though ſometimes it be covered with a grumous or viſcous Matter, which rubb'd off, the Bone appeareth white, brown, or black. If the white be pory, the *Caries* may be deeper and more dangerous than if it were black and hard. If the Bone lie ſo hid as that you cannot feel it with your Probe, yet you may judge it carious from the quantity or quality of the Matter. If the Bone lie near, and the Fleſh lax and white, it is ſhrewdly ſuſpicious that the Bone is carious: but if the Matter ſtink or be oily, it is a more certain ſign of a Rottenneſs. Ulcers of long continuance near a Bone do alſo foreſhew a *Caries*, according to *Hippocrates*, *Si Ulcera annua aut etiam diuturniora fiant, oſſa corrumpi neceſſe eſt.* Alſo the difficulty in cicatrizing them, and the frequent and ſudden Eruption of them after they are cured, giveth a ſuſpicion of a foul Bone. But if the Bone be much corrupted, the Matter is fœtid, and the Probe will penetrate into it.

Prognoſtick. Ulcers with *Caries* or Rottenneſs in the Bones are of difficult Cure, and reckoned amongſt the Cacoethe & malign Ulcers; but are more or leſs dangerous where the great Joynts or heads of the Bones are affected, where the Chirurgeon cannot ſafely apply ſuch Remedies as are proper for Exfoliation.

Cure. In the *Cure* of Ulcers with *Caries* a good Diet is to be obſerved, and the peccant Humours to be evacuated and averted by Bleeding, Purging, *&c.* leſt they cauſe Fluxion. And foraſmuch as in the Cure of theſe Ulcers the corrupt Bones muſt be firſt removed, and a *Callus* generated, before you can hope for Sanation; therefore you muſt in the firſt place make way to the Bone, that, if it be poſſible, you may have it in your ſight. To which purpoſe, if the outward Orifice be ſmall, you muſt enlarge it proportionably according as the *Caries* is greater or leſſer, and ſcrape the rotten Fleſh away, or conſume it by Eſcaroticks. But if by reaſon of the nervous and great Veſſels, as in the Hands, Feet, and in the great Joynts or Spine, you cannot ſafely do it; you ſhall then by prepared Sponge, Gentian roots, or the like, dilate the Ulcer till the *Caries* be bared. But if the *Caries* lie juſt under ſome conſiderable Nerve, Tendon or Artery, ſo that you cannot well come to apply your Medicaments to the Bone; you are then to conſider whether the *Caries* can be removed without laying the Bone more bare: and if that be not fecible, you are then to conſider the prejudice may happen to the Patient in the cutting off thoſe Veſſels, and, comparing

paring the Worthineſs of them with the Inconveniences which may behappen the Patient from the *Caries*, proceed accordingly.

The Bone laid bare, you are then to conſider the *Caries*, whether great or ſmall, deep or ſuperficial, hard or ſoft; and proceed by Medicaments or manual Operation accordingly. The Bones of the Head do not admit of the hot Iron, nor need it. The *Vertebræ* of the Back will neither admit of Cauteries, Rugin, or ſharp Medicaments, the Spine of them excepted: nor will the *Sternon* or Rib admit of the Cautery. The Heel-bone requires alſo great caution, for that it is ſoft, and rarely exfoliates by rough handling. In the reſt you may proceed by Cautery, actual or potential, Rugin, or otherwiſe.

If the *Caries* be ſuperficial, and the Bone firm, you may by Medicaments of a moderate drying quality conſume the moiſture in the *Caries*, and thereby dry the Bone, and diſpoſe it by virtue of its oſſifick faculty to thruſt out a *Callus*, and make ſeparation of its *Caries*.

The milder ſort are, *rad. ireos, peucedanum, rad. ariſtoloch. myrrha, aloe, cort. pin.* and *ſpir. vini.*

The ſtronger are, *euphorbium, unguent. Ægyptiac. ol. garyophyll. ſpir. vitriol. ſulphur. paſtill. Andronis, Muſæ, polyid.* But theſe require to be uſed with caution, and the ſound Parts to be well defended from their acrimony.

The Powders above mentioned may be applied upon the Bone with Doſſils of Lint over them, to keep the Lips of the Ulcer diſtended; or may be mixed with *ſyr. de roſ. ſicc. aut mel roſat. vel commun.* or uſed in a ſpirit of Wine, or with *unguent. Ægyptiac.* or thus in the form of Injections: ℞ *ſymphyt. maj. gentian. ariſtoloch. rot. & long. rad. ireos, an.* ℥j. *flor. roſ. rub. ſumach, balauſt. an.* ℥ß. *coq. in vin. alb. ad* ℔ij. *colaturæ adde ſpir. vini* ℥ij. *mell. roſ. aut Ægyptiac. q. ſ.* Where you can ſafely dilate the Ulcer, you ought to do it, and keep the Bone bare and dry, by filling it up with Doſſils, that the Lips of the Ulcer encroach not upon your work, leſt the Matter dropping from thence corrupt the ſound Bone under them: for to exfoliate well, it ſhould begin to riſe from the ſound edges.

The ſpongy Bones in the Hands or Feet are to be kept bare by Doſſils, according to the length of the *Caries*: and if the whole Bone be corrupt, it will dry and ſeparate from the Joynts in time, and the Ulcer happily cure; yet, to haſten it, you may dry it with an actual Cautery. But if the Bone be only carious in one part, as in the middle or at the end, to haſten the Cure you may nip it there in pieces with a pair of Pincers, pull away the broken bits, and dreſs it lightly with ſome of the above milder Driers; whereby in few days the *Caries* will caſt forth, a *Callus* thruſt out, and unite the two ends, as in fractured Bones, if the native heat of the Part be preſerved the while.

But if the *Caries* be in the great Bones, and lie deep, and be ſubject to the inflowing of Matter; your ſpeedieſt way will be by manual Operation, *viz.* either by Rugines or actual Cautery. If you can come eaſily to the Bone to ſcrape it, as in the *Cranium*, that way will be moſt proper. You are to ſcrape till you find it firm, or that you diſcern a ruddineſs in the Bone; and not only till it look white, for that is the natural colour of the outer Shell of the Bone: yet in ſome it is frequently found pory and carious while it retains that colour; and if you do not rugine that away, the *Callus* will be ſlow in thruſting out; and if you do rugine it, the deeper you enter into it, the browner and ſofter the Bone will be. Therefore you muſt be cautious in this Work, leſt you penetrate to the Marrow of the Bone, when poſſibly you needed not have taken away more than the external Shell of it.

The Bone rugined, dreſs it up with the milder Sarcoticks: or, if you had rather uſe an Unguent, ℞ *terebinth. claræ* ℥iv. *gum. elemi* ℥ij. *reſin. pineæ, maſtich.*

mastich. an. ℥vj. *thuris, sarcocollæ, an.* ℥iij. *Misc. super ignem.* Apply this warm upon Lint, and in few days you may see the Flesh thrust forth in small grains, which is *Callus*, and in few days more thrust off small Speels from the Bone you scraped.

But if the *Caries* be so deep that you cannot rugine it, then with a *Terebellum* make penetration into it to the sound part, or by an actual Cautery consume the Rottenness. In order to this work, if the Ulcer be narrow, you are to pass it through a *Cannula* fitted to go down through the Ulcer to the Bone: which *Cannula* or Pipe ought to be covered with an Emplaster or Linen starched on, and oiled, to pass in more easily. Then having a Bason of Water ready to cool the Pipe, you shall place the *Cannula* upon the carious Bone, having first cleansed the Matter from it with armed Probes: then pass the actual Cautery down through the *Cannula* to the Bone so often till you have dried it, pulling out the *Cannula* after each heat. So you may perform the work without scorching the Lips of the Ulcer.

According as the Bone is rotten, so the Humour will spurt out from it upon the first application of the Cautery: but upon repeating it, that Bone will be so dry that you shall not hear it hiss; besides, you may feel the Bone firm. Then dress it with the white of Eggs beaten with the Mucilage of Quince-seeds extracted in *aq. germ. querc.* or the like, and dress the scorched Ulcer and Lips with *unguent. refriger. Galeni*, and a Cerote of the same over that and the neighbouring Parts. Continue this way of dressing till the heat of the Ulcer be mitigated: then, if the Lips be vesicated, dress them with *unguent. album, tutiæ*, or the like, and the Bone with the milder Exfoliatives, and keep the Ulcer open till the burnt Bone cast off; then throw out the Dossils, and you shall see the Ulcer incarn and cicatrize by the most familiar Epulotieks.

IN the year 1652. passing from *Cheshire* into the County of *Rutland*, taking *Noth-Luffenham* in my way to *London*, I was desired there to visit a Free-holder, who had laboured under a Fever, and had been long Bed rid by reason of a grievous pain in his right Thigh, which was supposed the *Crisis* of that Fever. I saw him much emaciated, and his pained Thigh was somewhat the bigger of the two, but it retained its shape without any visible Tumour, Inflammation or hardness; nor was the Fluctuation so distinguishable as that I could positively say there was Matter, it lying so deep and equally in the outside of it: but, suspecting Matter, I opened it on the outside according to the length of the Member, and feeling my Knife in the Cavity, I made the Apertion large, and discharged a putrid Matter like the Lees of Beer. After I had discharged a Porringer-full, I dressed the Opening *cum unguent. basilic.* upon a Tent, with an Emplaster *de minio* over it, and with Compress and Bandage rowled it up. The next day, finding the Patient relieved, and the Matter plentifully discharged, I fomented the Tumour with a Decoction of *absinth. flor. cham. ros. rubr.* and such like, and making a search with my Probe, found the Bone bare a great length. I enlarged the Opening, to make more way for the Matter, and the better to apply my Medicines to the Bone; then dressed it up as before, and against the next day made an Injection *summitat. hyperici, centaurii, rad. consolid. maj. bistort. tormentill. gentian. ireos:* to which strained liquor I added *syr. de ros. siccis*, and cast some of it daily in warm to deterge the Ulcer. His body was kept soluble by Clysters of Milk and Sugar, and his Spirits relieved by a morsel of *theriac. Lond.* with *conf. lujulæ.* I also ordered him a Julep made with a few Strawberry-leaves and roots, a little Ivory, and a crust of Bread, infused a stick of Cinnamon in the strained Decoction, put in a few drops of *spir. sulphur.* and sweetned it with Sugar. His

1. Observat.

Diet was Oatmeal-Caudle, Broth, Grewels, and Eggs; and as his Appetite increaſed, we allowed him a more liberal Diet. Although the Opening was large, and the Thigh very bare of Fleſh; yet, by reaſon of the diſtance the Bone lay from the Opening, and the hollowneſs of the Ulcer, it was not poſſible to make any Applications to the Bone by Medicaments to exfoliate it, that ſhould not be offenſive to the Ulcer, if they were ſo powerfully drying as the Bone required. Therefore I cauſed an actual Cautery to be made at the next Smith's, and dried the Bone that way, & the while continued the above-ſaid method of dreſſing, keeping the Orifice moderately dilated with Doſſils preſt out of the Injection; then by good Compreſs and Bandage ſqueezed out the Matter, inſomuch as it leſſened daily, the more remote Cavities agglutinated, and the Ulcer was like to cure, if the *Caries* in the Bone did not obſtruct it. That it might not, I got the Cautery made in the form of a Wedge, but thicker, to retain heat; and having fitted it with a *Cannula*, I placed it upon the Bone according to the length of the *Caries*, paſſed the Cautery through it to the Bone, and repeated it again and again, cooling the *Cannula* each time in a diſh of water near me: then I covered the Bone, and dreſſed the Opening with Doſſils dipt in a Mucilage of Barley and Comfrey-roots, faſtning a Thread to thoſe Doſſils which I conveyed firſt in towards the Bone, the better to bring them out again, and applied *unguent. refrigerans Galeni* outward upon the Ulcer, with an Emplaſter of *cerat. Galeni* over all. This way of dreſſing I continued daily till the Excoriation was healed without: then I repeated the uſe of the former Injection, adding *flor. roſ. rubr. balauſt. ſumach*, with a little *alumen*, and by Compreſs and Bandage haſtned the unition of it within, leaving the Exfoliation of the Bone to nature. While I ſtay'd in that Country, the Cavity filled up, and by the well-digeſted and little Matter the Ulcer ſeemed near cured; and I was afterwards informed that the Patient followed his Husbandry ſome one or two months after. The Exfoliation was here inſenſible, as it moſt frequently happens, the Scales mouldering away, and diſcharging with the Matter.

2. Obſervat. of an Ulcer with *Caries* in the *Tibia* and *Fibula* of the right Leg.

A Gentleman of about forty years of age, having been long afflicted in the Country with Ulcers on his right Leg and Foot, came to *London*, and put himſelf into my hands. There was one large Ulcer upon the *Fibula* near the Ancle here and there ſuperficially cicatrized. Upon ſearch with a Probe I found the Bone carious in ſeveral places, but covered with the Tendons of the *Peroneïs*. On the inſide of the Leg upon the *Tibia* near the Ancle there were alſo Ulcers with *Caries*: the Foot was alſo ulcerated, and the Leg and Foot ſwelled. I began with the laying open of that Ulcer on the outſide upon the *Fibula* by the application of a Cauſtick, and dividing the Eſcar took out ſome ſmall pieces of Bones which lay looſe in the Ulcer. The *Fibula* it ſelf was covered with the Tendons of the Muſcle *Peroneïs*, ſo as there was no poſſibility of applying Medicaments to exfoliate the Bone, nor indeed of curing the Ulcer, whilſt thoſe Tendons lay in the way. Wherefore I cut them tranſverſly; upon which diviſion the upper part of them contracted, and then the *Fibula* appeared bare and black. I applied dry Lint upon the Bone, and dreſſed the Ulcer with *unguent. baſilicon* hot, to haſten Digeſtion and ſeparation of the Sloughs. The other Ulcers and Excoriations I dreſſed, ſome with Deterſives, and others with Epuloticks, according as they required; and with Compreſs and Bandage endeavoured to preſs out the pituitous Humours affecting thoſe Parts. As the Eſcars began to ſeparate, I deterged by the uſe of the Vitriol-ſtone and Præcipitate, and dreſſed the Bone with Doſſils preſſed out of *tinctura vitrioli dulc.* of Felix Wurtz. The upper ends of the Tendons ſuffered Convulſion with great *tremor* upon the application or taking off Dreſſings; but it was without

without pain: yet, ſuſpecting the worſt, I cut as much off of the Tendons (with a pair of Sciſſors) as lay bare, then dipt them *cum oleo terebinth.* hot, and dreſſed them with Præcipitate. By this way of dreſſing the remaining ends of the Tendons digeſted and incarned with the fleſhy Parts, and by the application of Epuloticks cicatrized: ſo alſo the main Ulcer cicatrized round from the edges to the carious Bone, thruſting off the rotten edges of them before it. During this I healed the Ulcers and Excoriations on his Foot, and by the help of a laced Stocking preſt back the pituitous Humours, and reduced the Member to its true ſhape. Having thus happily ſucceeded, I began with the laying open the Ulcer upon the *Os tibiæ* by Cauſtick, and in dividing the Sloughs took out ſeveral fragments of Bones which lay intangled in the Fleſh. After ſeparation of the Eſcar, I deterged that Ulcer after the ſame manner as the former; and indeed by rubbing the carious Bones with the Vitriol-ſtone I haſtned the Exfoliation of them. They came away in bits at ſeveral times, but that of the *Fibula* was thruſt off by the *Callus* underneath in one piece. After the Exfoliation of the Bones I purged the Patient with a cathartick Apozeme, and preſcribed him a Decoction of *Sarſa*, &c. and ſoon after cicatrized the Ulcers; but adviſed him to continue the wearing of the laced Stocking.

3. Obſervat. of an Ulcer with rotten Bones in the Hand.

A Young man by ſome accident bruiſed the Back of his hand: it inflamed and apoſtemated, and after ſome while terminating in a ſinuous Ulcer, and underneath corrupting the Bone, I was conſulted, and adviſed the way of dreſſing it: but that method not being obſerved, other Bones of the Hand became carious, and the Hand in great hazard of being loſt. Upon which he was commended to my care. Sir *Alex. Fraſ.* being preſent, I took off the Dreſſings, made a ſearch with a Probe, and felt the Bones leading to the two middle fingers bare, rough, and, as I ſuſpected, rotten. The Orifice being ſmall, I applied a Cauſtick large enough to make way for the taking out thoſe Bones; then divided the Eſcar, and dreſſed up his Hand with Digeſtives, Emplaſter and Bandage. Sir *Alex. Fraſ.* preſcribed him a vulnerary Decoction, and left the proſecution of the Cure to me. As the Eſcar ſeparated, I ſaw the Bones leading to the two middle fingers black, and ſoftned with Putrefaction. I laid hold on the one with my *Forceps*, and pinched it into pieces with much eaſe, bringing part of it away. I fomented the Hand with *decoct. abſinth.* &c. in Wine, diſſolved a little *Ægyptiac.* in ſome of it, waſhed the Ulcer, and applied a Doſſil dipt hot in it upon the Bone, and *unguent. baſilicon* over the Eſcar. I then pinched out what was moſt rotten, dreſſed the remaining ends of them with a mixture of *unguent. Ægyptiac. ſpirit. vini* and *extract. ſcordii* actually hot with an armed Probe, applied Pledgits of the ſame upon the Bones, rubb'd the looſe Fleſh in the Ulcer with a Vitriol-ſtone, and laid *unguent. diapomphol.* upon Pledgits over the tender edges of the Ulcer. By this way of dreſſing I deterg'd the Ulcer, and at ſeveral times pinching out thoſe rotten Bones that led to the two middle Fingers, diſpoſed the reſt to caſt off. During which I laid the Ulcer higher open to the Joynt of the middle Finger: which Knuckle I alſo found rotted to pieces, and took out what would come eaſily away; then dreſſed the remaining *Caries* as the other in the Hand, and after ſome time made a ſeparation of the *Caries* there. Having the while digeſted and healed the Ulcer I firſt laid open, I alſo cicatrized this Part, and diſmiſſed the Patient well cured, as I thought. But ſome while after he came to me again with a Tumour upon that Knuckle of the middle Finger, from ſome remaining Splinter of a Bone. I laid it open, and took that out. While I was curing this, I obſerved a ſmall Opening, with a Tumour near it as big as a ſmall Hazel-nut, upon that part of the Bone which led to the Fore-finger. I opened

this by Cauſtick, and, diſcovering part of the Bone black, pinched it off, and dreſſed the remaining end with *Ægyptiac.* ſcalding hot upon an armed Probe. I kept the Ulcer open with Doſſils preſt out with *ſpirit. vini* till I made ſeparation of it, then cured this Ulcer alſo. And from that time, which is more than five years, he hath continued well, and his Hand is firm and ſtrong; Nature having ſupplied that loſs of Bones with *Callus*. But he beareth the Marks of the Diſeaſe, which will aſſert the truth of what is here delivered. You may ſee more of this work in the Treatiſe of *Struma*.

4. Obſervat. An Officer of the King's Regiment of Foot, of a Sanguine and healthful Conſtitution, marching at the head of his Company in a hot Summer's day, heated his Bloud, and was ſeized with a pain in one of his Teeth of the lower right Jaw. He ſent for a Tooth-drawer, who pulling out the Tooth brake the *Alveoli* off from the Jaw according to the length of it. The pain made great Fluxion, and required Evacuation and Revulſion by Bleeding and the like. But this being omitted, and the Part affected not treated as it ought, the pain increaſed, the neighbouring Parts ſwelled and apoſtemated, and all his Teeth and part of the *Alveoli* caſt off. After ſome weeks continuance in the Country, finding his Diſeaſe increaſe upon him, he came to Town, and ſent for me. That ſide of his Head, Face and Neck were extreamly ſwelled outwardly, ſo was the Cheek and Tonſil within, and the fractured Bones hidden within the Tumour. Upon a preſſure with my hand on the outſide of his Cheek, ſeeing the Matter flow into his Mouth out of a ſmall Opening near the farther part of that Jaw, I made a ſearch with a Probe, and felt the Jaw bare. There was a neceſſity of laying that Orifice open, for the more eaſie diſcharging of the Matter: which being done, I employed my endeavours to take off the Fluxion and Fever he laboured under, let him bloud from that Arm ten ounces, preſcribed Fomentations and Cataplaſms to be applied outwardly to diſcuſs the Tumour, and inwardly an Injection to deterge the Ulcer of *rad. ireos, tormentill. biſtort. ariſtoloch.* with *ſyr. è roſis ſiccis*, and a little *ſpirit. vini*; alſo a Gargle to waſh his mouth of *flor. roſ. rubr. plantag. ſummitat. rubi*, &c. with *diamoron* and *ſpirit. vitrioli dulcificat.* Doctor *Warner* being conſulted, he directed Anodyne draughts, Cordials, Juleps, Emulſions, and purging Apozems. The *Cacochymia* thus evacuated, and the Humours contemperated, we hoped the outward and inward Swellings and diſcharge of Matter would have leſſened: but they not yielding one jot to our endeavours, I laid open the Cheek from the Orifice I had enlarged forward alongſt the Bone, with intention to take it out; but it was ſo ſhut in that I could by no means get it out, till with Watch makers Files I cut through that Bone; then the ends thruſt out into his mouth. Theſe I pulled out: they proved to be pieces of the *Alveoli*. Then I felt the Jaw it ſelf ariſe; and, conſidering that if it were looſe it muſt out, I paſſed the end of my Probe under it, whereupon it roſe up, having been ſome while looſe, and was only held down by the foreſaid *Alveoli*; which being removed, the Jaw came away without the leaſt pain or one drop of bloud, he only crying out of his Ear, as if it had made a hole through there.

The Jaw being extracted, the ſide was ready to fall in: to prevent which I cauſed the Patient to hold it ſtretched out with his fingers in his mouth, and a Looking-glaſs held before him, that he might the better ſee to keep it more exactly even, whilſt I by agglutinative Powders *cum albumine ovi* made a Cruſt upon the outſide; which with Paſtboard wet *in aceto* applied over it ſate cloſe to it, and after it was dried kept that ſide of the Cheek firm, and by Bandage it continued ſo, he helping it as hath been above ſaid. It alſo was ſomewhat ſtiffned by the hard Swelling which was in the Cheek.

To haſten the *Callus*, I gave him daily *oſteocoll.* as I had read in *Fabr. Hildanus*

Hildanus his Works. Whilst his Chaps were thus bound up, I continued to wash his Mouth with the Decoction aboveſaid injected often in a day with a Syringe; by which means the Ulcer was cleanſed and cured, and diſpoſed to a *Callus*, which grew and hardned in leſs than twenty days ſo equal with the other, as without looking in his Mouth it could not be diſcerned.

Chap. VIII.

Of Ulcers with Callous Lips, &c.

IT alſo frequently happens that Ulcers become callous, hard and livid, and are thereby rendred difficult of Cure.

Theſe Ulcers are generally annual, and through length of time contract this Calloſity and hardneſs with a livid colour. The *Cauſes* of theſe are the frequent defluxion of a hot *Serum*, which hath been condenſed by the Air, or by over-cooling or drying Medicaments. Cauſe.

The *Signs* are evident from what hath been ſaid of them.

The *Prognoſtick* of them is, that the Ulcer cannot cure till the Calloſity be removed: and if the Ulcer be of a round figure, that ought alſo to be changed. Prognoſtick.

In the *Cure* of this Ulcer you are to conſider the hardneſs of the Lips; for from what cauſe ſoever it ariſeth, that muſt be removed, or depreſt to cicatrize with the Ulcer; for no Ulcer skinneth well but from the edges. Therefore if the Lips be hard and callous in the Superficies, you ſhall endeavour by emollient and diſcutient Medicaments to ſoften them; and by good Compreſs and Bandage diſpoſe them to cure firſt, by a Fomentation of *rad. & fol. althæa, lilior. malvæ, ſem. lini & fænugræci, flor. cham. melilot. ſambuci.* By this you may alſo rarefie the condenſed bloud, which maketh the lividity in the Parts about the Ulcer, and preventeth the generation of good Fleſh. Then you may embrocate the indurated Lips with *unguent. dialthææ, ol. amygdal. dulc. ol. lilior. lumbricor.* and apply *cerat. æſypi, cerat. Galeni, Emplaſtr. è mucilag. diachyl. ireat.* or, if ſtronger be required, *Empl. de ranis cum Mercurio*, or a plate of Lead rubb'd with Mercury, or a Paſt of Ceruſe or *calx lot.* made up with *axung. porcin.* and over this a good Compreſs and Bandage; of which ſort the laced Stocking is beſt for the Leg, which being well made preſerveth the other Parts from Fluxion better than a Rowler doth. But if the edges of the Lips be inverted and callous, or the Ulcer be in ſuch a place where you cannot make good Bandage, your beſt way then will be by Cauſtick or Knife to remove it, and then digeſt and heal the Lips even with the Ulcer. Cure.

A Young man of about eighteen years old, of an ill Habit of body, having laboured long under an Ulcer on the inſide of the Ancle of a round figure, with the Lips thick and callous, and the Parts about livid, put himſelf into my hands for Cure. There was in this caſe no hopes by Emollients or Bandage to flat the Lips ſo as to diſpoſe them to cicatrize; therefore I rubb'd them with a Cauſtick-ſtone round, dreſſed the Ulcer with *unguent. baſilicon* and Præcipitate, and applied *Emplaſtr. diachyl. ireat.* over all, with Compreſs and Bandage, 1. Obſervat.

dage, designing to dispose the Lips to unite with the Ulcer. But the Escar separating slowly, the Lips skinned underneath, and disappointed me. Notwithstanding, the inverted parts being removed with the *Callus* underneath, I made a Paste with *calx lota* and *axung. porcin.* and with good Compress forced the Lips even with the Ulcer, then united it with a smooth and firm *Cicatrix.*

2. Observat. of Callous Lips.

A Maid in *Fanchurch-street* labouring under such an Ulcer with livid callous Lips, but not inverted, I digested with *unguent. basilicon* and Præcipitate, and fomented with a Decoction as above mentioned, then applied *Emplastr. diachyl. ireat.* over the Parts about, and put on a laced Stocking with a Compress under it, thereby digesting the Ulcer, and flatting the Lips; incarning and cicatrizing it with *unguent. diapompholyg.* in less than three weeks, which had been more than three years the work of some Barber-chirurgeon. The speedy Cure of this I imputed to the laced Stocking, it performing all the Intentions necessary to the curing of many such like Ulcers.

Chap. IX.

Of Putrid Ulcers.

Ulcers labouring under Fluxion of sharp acrid Humours are (as I have elsewhere said) for the most part sordid. The *Sordes* as it increaseth in the Ulcer rots the Flesh, renders the Ulcer putrid, and the Matter fœtid.

Causes.

The immediate *Cause* of these Ulcers are gross viscid Humours heated in them by the *Intemperies* of the Part, whence they contract a malign quality, and corrupt. They also happen through the unseasonable application of lenient or greasie Medicaments, or by too-powerful Detergents, which resolve the sound Flesh, and stir up a putrefactive heat in the Ulcer, whereby the Humours become so sharp that they corrode the Parts about: whence they are sometime deservedly called *Ulcera serpentia & depascentia.*

Causes preceding.

The preceding *Causes* are excrementitious gross Juices abounding in the body from ill Diet, Air, *&c.* Malign Fevers are also the Cause, by transmitting their malignity outward.

Sign.

The *Sign* of a sordid Ulcer is a viscous tough Excrement sticking in it with great heat and pain. As the *Sordes* increaseth, it changeth its colour, by reason of the suffocation of the natural heat, and the Ulcer corrupts, and the Matter stinks.

Prognostick.

If from abundance of *Sordes* Transpiration be hindred, a corruption of the Part follows, and it terminates in a corrosive or putrid Ulcer: and if that Putrefaction be not checked, a Gangrene and *Sphacelus* follows.

Cure.

In the *Cure* of these Ulcers a good Diet is to be observed, with a regulation of the Non-naturals: the viscous Humours require to be purged, and Revulsion is to be made by Bleeding and otherways. Vulnerary Decoctions are also to be prescribed, to waste the excrementitious Humours. The Topicks or outward Medicaments are to be proportioned according to the quality of the Ulcer. In sordid Ulcers made by too strong Detergents *unguent. basilicon cum Merc. præcipitat. unguent. diapompholyg. mag.* be proper to dress the Ulcer with; and some cooling Unguent or Cerote, as *refrigerans Galeni,* may be applied over it, with a Compress wrung out of *Oxycrate.*

If

If the Ulcer became sordid by the use of Lenients, and be lined thick with the *Sordes*, doubt not to fill the Ulcer with Præcipitate, and apply some mild Detergent on Pledgits of Lint over it, with a Compress wrung out as is prescribed in humid Ulcers, and dress it not till the third day after: thereby the pain will lessen, and the *Sordes* come away in a Slough. After which digest the Ulcer till it look more fleshy and natural; then proceed with milder Medicaments, and incarn.

In the common sordid Ulcers *unguent. basilicon* and Præcipitate, ℥iij. to an ounce, *mundif. Paracels.* with *alumen ust.* and *unguent. apostolor.* are proper Detergents.

If the Ulcer be putrid, wash it with a good *Lixivium* wherein *absinth. scordium*, &c. have been boiled, or with *spirit. vini* and *unguent. Ægyptiac.* or sprinkle the Ulcer with *pulv. sine pari Joan. Ard.* or *pulv. troch. Andronis*, &c. and outwardly defend the Parts from Fluxion.

If the Ulcer be corrosive, and undermine the Lips, and render the Flesh soft and unfit for healing, dress it as shall be shewed in a *Phagedæna*.

But if the putrefaction increase, and the Ulcer tend to Mortification, treat it as is said in *Gangræna* and *Sphacelus*.

1. Observat. of Putrid Ulcers.

A Woman of about forty years of age, scorbutically & hydropically affected, having long laboured under a sordid Ulcer in the Country on the inside of her Leg, with great pain, came at last to Town, and put her self into my hands. The Ulcer was large and deep, with great putrefaction; the Leg was much swelled, inflamed, and had been excoriated in the Parts about by the acrimony of the Matter; and by the application of *Nutritum* or such like the Matter was crusted in, and also a *Hypersarcosis* was risen underneath very large. I fomented the Parts affected with Wine, and washed the Ulcer with *spirit. vini* and *unguent. Ægyptiac.* then with a *Spatula* thrust out the putrid Flesh, and strewed the Ulcer with Præcipitate, dressing it with Pledgits prest out of the same Solution, & applying an *Emplastr. diachalcit.* over it with Compress and Bandage. The next morning I took off the Bandage and Emplaster, fomented the Ulcer with a *Lixivium* as above mentioned, applied *mundif. Paracels. cum oleo terebinth.* on the Ulcer, and a Cataplasm *ex far. fabar.* with *oxymel*, and rowled it up as before, causing her to keep her bed. The day after I purged her with an Infusion of *Sena*, &c. *cum syr. de spina cervin. & de ros. sol.* and prescribed her a *Decoct. sarsæ, lign. guaiaci*, with Antiscorbuticks. Having by the Dressings aboveSaid removed the Putrefaction, I endeavoured to incarn with the sarcotick Unguent, and applied *cerat. oxelæi* over it with good Bandage: but it would neither deterge nor incarn nor yet digest for two days, till I put on a laced Stocking; by the use whereof the Influx was restrained, and the Lips pressed down. Having disposed the Ulcer to a healing condition, I incarned it with the foresaid Unguent of *mel despumat.* mixed with sarcotick Powders. While I was doing that, I rubb'd part of the Lips which were callous with a Caustick-stone, and also rubb'd the *Hypersarcosis* off by some of the same Caustick. After separation of the Escars I cicatrized the Ulcer and neighbouring Ulcerations with Epuloticks, then made her a Fontanel in the other Leg, and returned her into the Country cured.

2. Observat.

A Maid of a gross full Body, aged about twenty three years, wanting her natural Evacuations, an Abscess thrust out on the inside of the Calf of her left leg, and terminated in a callous sordid Ulcer. After some endeavours ineffectual in the Country, she was sent up to *London*, and commended into my hands by Sir *Fr. Prujean*. The Ulcer was large and deep. I dressed it with *unguent. Ægyptiacum, basilicon*, and *Emplastr. diachalcit.* with a Compress dipt in red

red Wine, rowling it up from the Foot to the Knee. The Phyſician began with the direction of a Purging draught, and the ſecond day after I let her bloud. She was alſo preſcribed the *Decoct. traumat. Londinenſ.* and once a week purged with *pulv. cornachin.* I furthered the Deterſion of the Ulcer by rubbing it with the Vitriol-ſtone, and afterwards digeſted it, and endeavoured to incarn with Sarcoticks, as in the former Obſervation: but on a ſudden, without any cauſe, the Matter became ſanious and flowed in great quantity. I then dreſſed the Ulcer with *pulv. Andronis* mixt with *unguent. baſilicon*, fomented the Part with *ſummitat. abſinth. centaurii, hyperici, flor. roſ. rubr. bacc. myrtillor. balauſt.* decocted in Wine, and by Intercipients upon the Knee and good Bandage endeavoured to reſiſt the Influx. Upon my complaint to the Patient and her Relations of the difficulty I met with in the Cure, I perceived by them that the Ulcer had been frequently ſubject to ſuch diſcharge. The Phyſician was again conſulted, who concluded they were the *Menſtrua* that thus periodically affected the Ulcer. She was again let bloud and purged, and put into a chalybeate courſe, a Fontanel was alſo made in her other Leg: during which I proceeded again by Deterſives, *viz.* the Vitriol-ſtone, *Merc. præcipitat.* alone, and with *mundificat. Paracelſi*, &c. and applied Defenſatives, with Compreſs and a laced Stocking. By which method the Ulcer ſeemed a while well diſpoſed to incarn: but the *Menſtrua* being ſtill obſtructed, the Ulcer became again diſtempered, and rendred all my endeavours fruitleſs.

I having ſpent ſome months in this work to little purpoſe, they grew weary of me, and were deſirous to make uſe of an Empirick, who had ſeen it in my abſence, and promiſed a ſpeedier Cure. I gave way to the entertaining him; he alſo dreſſed the Ulcer after his way: but his endeavours proving alſo unſucceſsful, they came to me again. I, finding the Leg much inflamed and ſwelled, and more ſordid, dreſſed the Ulcer with Detergents as above ſaid, applying *ceratum Galeni* over the diſeaſed Parts with Compreſs and Bandage as heretofore, and by Sir *Fran. Prujean*'s leave gave her a few grains of *Turbith mineral.* the next day, and it gave her four or five Vomits and a Stool or two. The next day after I fomented the Ulcer as at firſt, continued the uſe of the former Dreſſings, put her on a laced Stocking, and repeated the uſe of the *Turbith* three or four times, avoiding Salivation. We alſo put her into a *Decoct. ſarſæ, lign. guaiaci*, &c. and by this method incarned the Ulcer, and by a *malagma* of *calx lot.* beaten up with *axungia* cicatrized it. By the continuing of the laced Stocking ſhe remained well, and after ſome months thoſe Evacuations came naturally down of themſelves, which by no Art would be perſwaded, and ſhe remained well.

CHAP.

Chap. X.

Of Phagedæna, Nomæ, Dyſepulota.

BEſides all the difficulties we find in curing of Ulcers upon the forementioned Accidents, there yet remain divers others which are not eaſily deſcribed, nor eaſily reconciled to the ancient Nomenclature of Ulcers: I mean thoſe called *Annua*, *Phagedænica*, *Depaſcentia*, *Nomæ*. Out of which words that I may pick ſome ſence, I ſhall refer them to two Heads.

One, of the corroſive Ulcers, which from their corroding the neighbouring Parts have obtained ſeveral names in the *Greek* and *Latin*; as *Phagedænica*, *Depaſcentia*, and *Nomæ*: all which depend upon an acrimony of the Humour.

The other are rather the effect of ſome continuance of an Ulcer, which after long *Intemperies* doth by degrees ſo weaken the tone of the Fibres, deſtroy the natural Balſam of the Part, and by frequent Fluxion induce Calloſity, that the Diſeaſe groweth very hard of Cure, and when cured is apt to break out again. Theſe, from their continuance, are called *Annua*; from the evil diſpoſition of the Part, *Cacoethe*; from the hardneſs of cicatrizing, *Dyſepulota*; from the reputation *Chiron* the Centaur had in Chirurgery, *Chironia*; and *Telephia*, from the hard fate of *Telephus*, whoſe Wound could not be cured but by the Spear that wounded him. Theſe latter being inſignificant names, not deſcribing the nature of any Ulcer, I ſhall content my ſelf only to have explained them in few words: but the former, namely *Phagedæna*, or *Ulcus depaſcens*, *Nomæ* and *Dyſepulota*, deſerve farther conſideration, and are our preſent task.

Deſcription. *Phagedæna* ſtrictly ſo called is an Ulcer with ſwelled Lips, that eats the Fleſh and neighbouring Parts in the bottom and edges of the Ulcer. It differs from *Herpes*, becauſe that always begins in the Skin, with little moiſture, this always affects the Fleſh, and abounds with Matter.

Noma is a deep Ulcer that eats and ſpreads without Tumour, but hath a Rottenneſs and Putrefaction joyned with it.

Difference. Both theſe are venemous malignant Ulcers, and both ſpread: but they differ, in that one hath Tumour, and no Putrefaction; and the other Putrefaction, and no Tumour.

Cauſe. Theſe Ulcers do all take their Original from vicious Humours abounding in the Body. Whether they be ſimple Choler, or a ſalt Phlegm mixt with it, or that the Humours are made ſharp and corroſive from a hot and dry *Intemperies* of the Part affected, I leave others to judge: but in Bodies abounding with *Cacochymia* it is frequently ſeen, that an *Herpes exedens* ariſeth in the Noſe and Face from a ſmall Wart or fiery Puſtule, which being heated by ſcratching or picking with their Nails will terminate corroſive, and from an *Herpes exedens* become Phagedænical, and by a farther exaſperating cancerate; they differing but as the Humour becomes more or leſs fierce.

Signs. The *Signs* are evident from what hath been delivered of them. Some take their Original from Abſceſſes deep in the Fleſh, others begin more ſhallow, and in time ſpread and eat, not only the Skin to the Fleſh, but the Parts about, and diſſolve the Fleſh in the bottom of the Ulcer very ſenſibly.

Prognoſtick. All theſe kinds of corroſive eating Ulcers are accounted malign: but ſome are leſs malign than other. Thoſe which ariſe in venereal Diſeaſes are in themſelves

ſelves difficult of Cure; but by reaſon of the Specificks that Diſeaſe hath for its help, they become eaſie. The others are extream difficult, and do frequently terminate cancerous.

Cure. In the *Cure* of theſe Ulcers a good Diet ought to be preſcribed, to prohibit the increaſe of ſharp Humours. The Body is alſo to be purged, the Humours contemperated, and the Matter to be diverted by Revulſion, Derivation and Interception, if it be poſſible. The virulent Humour affecting the Ulcer requires to be dried up, and the *Intemperies* to be corrected. But foraſmuch as theſe Ulcers differ one from another in their corroſive quality, the Medicaments muſt accordingly vary. If the *Intemperies* be hot, and the Ulcer corroſive, your Applications are to be cold and dry, with ſome little aſtringency; as *unguent. tutiæ, è plumbo, de calce, & de lithargyro.* If theſe anſwer not expectation, you muſt proceed with more ſtrong Medicaments. But by the authority of the Ancients you muſt ſcarifie theſe Ulcers, or ſome way provoke them to bleed, that the ſharp Humours may thereby be diſcharged. Then waſh them with ſome drying Medicaments, which may alſo reſtrain the Influx of the Humours; as *aq. calcis, æruginoſa, or aluminoſa,* or a *Decoct. plantag. equiſeti, rubi, flor. roſ. rubr. balauſt. nuc. cupreſſ. gallar.* in a Chalybeate water. After which the Ulcer may be ſprinkled with any of theſe, *pulv. tutiæ præparatæ, corn. cervi uſti, pulv. oſtreor. combuſt. cort. granat.* Or they may be made into Unguents, as thus; ℞ *unguent. diapomphol.* ℥ij. *bol. Armen. ſang. dracon. balauſt. an.* ʒß. *ol. roſ. q. ſ. Miſc.* a Compreſs being applied wet over all, wrung out of ſome aſtringent Decoction. The Ulcer thus dreſſed is not to be opened again in three or four days: for in theſe Ulcers the temperament of the Part is weak, and the frequent expoſing it to the Air rendreth it more weak, and the Medicaments leſs effectual.

But if this Ulcer be with Rottenneſs and Putrefaction, you are to proceed with Detergents, as *unguent. Ægyptiac. Merc. præcipitat. pulv. Andronis, Muſæ,* alſo Cauſtick and actual Cautery. To theſe Applications Objections have been made; and, but a little above, Medicaments are by my ſelf propoſed drying without Eroſion: but when thoſe take no place, we proceed to ſtronger; and where there is Putrefaction, you will find uſe for the ſtrongeſt ſort of Medicaments, as the actual Cautery, it not only ſerving to remove the corroſive Fleſh, but to check the malignity, and ſtrengthen the weak Part. But in caſe that will not be admitted of, you muſt proceed with the other, and the while defend the parts about with Refrigerants, and after ſeparation of the corrupt Fleſh, treat it by Sarcoticks and Epuloticks, as hath been elſewhere ſaid.

1. Obſervat. of an Ulcer hard of Cure. A Man aged ſixty odd years, of a lean dry Habit of body, had a long time been troubled with an Ulcer on the inſide of the Ancle on his right Leg: it had been often cured, but it broke out again ſoon after. I found the Ulcer ſanious, the Parts about it ſwelled and livid, & endeavoured to cure it by the common method ſet down in the general Cure of Ulcers; but it would not digeſt two days together. I then propoſed a laced Stocking: but he replied there was no need, his Rowler kept off the Swelling. Obſerving him to be ſo very wiſe, I omitted my accuſtomed attendance, upon which he imployed another, who found much difficulty in it. Whether he cured it or no, I do not know; but about half a year or more after, the Patient ſent for me again. The Ulcer was undigeſted, and the Fleſh in it ſoft and rotten, of a florid colour, and the Parts about it as it were bruiſed; which proceeded from the frequent Fluxion and unequal ſtrict Bandage. I propoſed a laced Stocking which he willingly permitted. Mean time I deterged the Ulcer with *Merc. præcipitat.*

præcipitat. applied Pledgits of *unguent. baſilicon. mag.* over it, with an Emplaſter of *cerat. Galeni*, Compreſs and Bandage. The ſecond day after I fomented the Ulcer and Parts affected with a diſcutient and aſtringent Decoction, and digeſted it with *unguent. baſilicon* and *Merc. præcipitat.* After I had thus digeſted and deterged the Ulcer, and rarefied the impacted Humours in the adjacent Parts, I fomented it with *aq. calcis*, applied Pledgits dipt in the ſame over the ends of the Ulcer, and dreſſed the middle with *unguent. de lithargyro*, applying an Emplaſter of the ſame over all with Compreſs, and laced on a ſtreight Stocking; by which the Fluxion was moderately reſtrained, and the Ulcer diſpoſed to cicatrize: yet through the acrimony of the Humour, and the indiſpoſition of the Lips & adjacent Parts, the work was not without ſome difficulty, the Matter being apt to ſhut in and bring part of the *Cicatrix* with it. But it was cured in leſs than two months ſpace; whereas without that Stocking it would ſcarce have cured in ſix months. It was uſually painful after it had been cured by former methods, but was now free.

2. Obſervat. of an Ulcer of hard cure.

A perſon of about fifty years of age, much ſubject to the Gout, having long laboured of a ſoar Leg, ſent for me. There was one large Ulcer with callous Lips on the inſide of the Small of his leg, with an Ulceration down below the Ancle. This Leg had been formerly ſubject to pituitous Swellings, wherein the endeavouring to reſiſt the Influx had impacted the Matter, and made the Tumour ſcirrhous. The Ancle-joynt was ſtiff, and the Knee as bad, by reaſon of a contraction in the Ham. Upon theſe conſiderations the Soars were of difficult Cure. I dreſſed the larger Ulcer, which was ſordid, with Præcipitate and *unguent. baſilicon*, the leſſer with *unguent. è plumbo*, with Compreſs and Bandage, and againſt the next Dreſſing provided a Fomentation of red Wine with Stipticks, hoping that way to cicatrize the leſſer Ulcers at leaſt: but they would not cure ſo, for the indurated Parts required to be made ſoft, & the Matter to be diſcuſſed firſt: but this was a hard task, while the Patient laboured under the Gout, or pain from the weakneſs and indiſpoſition of the Parts. Therefore, having deſigned a Fomentation *ex rad. & fol. althææ, malvæ, parietariæ, ſem. lini*, &c. I bathed the Leg as it was held over the Liquour, continued my Applications to the Ulcers, and applied *cerat. dialthææ* over the ſcirrhous Parts; continuing this method till I had relaxed the hardneſs. Then I put on a laced Stocking, by which I ſtrengthened the Part againſt the Influx, and uſed all my endeavours to cicatrize the Ulcers, by Pledgits preſt out of aſtringent Liquours applied upon Lawns, alſo by epulotick Unguents, Powders, and *Malagma*: but as faſt as I healed them in one place, they brake out in another, ſo that with much difficulty I cicatrized them at laſt by the help of a laced Stocking.

3. Obſervat. of an Ulcer difficult of cure.

A Maid of about ſeventeen or eighteen years of age, with an Ulcer in her right Leg about a hand's breadth on the inſide near the Ancle, deſpairing of Cure, ſent for a Woman who had ſome credit in the curing ſuch Ulcers. She came, and ſeeing a foul Ulcer with thick hard Lips, applied a Cauſtick to it, I ſuppoſe *Merc. ſublimat.* It put the Patient to grievous pain for the ſpace of a day and night, cauſing great Inflammation and Tumour. Upon which conſideration the Woman was ſent for again. She ſaw the effects of her Medicine, and would have applied ſomewhat to eaſe the pain: but the Patient's Friends ſeeing the diſturbance in the Ulcer, and doubting whither it might tend, reſolved now to put her into the hands of a Chirurgeon, and ſent for me. I came, and found the Leg ſwelled, and the Eſcar large covering the Ulcer, and taking in the callous Lips round. It was ſo thick and deep, that I much feared it would leave the Bone bare under it. My work was to haſten the ſeparation

of the Eſchar,and mitigate the Accidents of pain,*&c.* To which purpoſe I fomented the Part affected with Milk, dreſſed the Eſchar with *unguent. baſilicon cum ol. liliorum*, and applied *cerat. Galeni*, with Compreſs and Bandage to retain it. Thus in few days the pain ceaſed,and the Eſchar ſeparated,leaving a Fleſh of a colour as it were bruiſed. I dreſſed the Ulcer with a Digeſtive *ex terebinth. far. hord.* &c. and fomented the Tumour and Ulcer with *Decoct. abſinth. flor. roſ. rubr. balauſt.* &c. then applied *unguent. tutiæ* as an Emplaſter with Bandage. After Digeſtion, I incarned with *mel deſpumat.* &c. and continued the uſe of the Fomentation,hoping thereby to give a breathing,and dry up the bruiſed Parts which made that lividity about the Ulcer, and were the cauſe of its difficult curing. As the Ulcer incarned, I endeavoured by Bandage to keep the Lips flat to cicatrize with the Ulcer,and to that purpoſe dreſſed them and the Ulcer with *unguent. è calce*, touching the lax Fleſh with the Vitriol-ſtone,to dry it,and fit it to cicatrize,and with much pleaſure cicatrized it to the compaſs of a Silver peny,and thought the work very eaſy. But, when I leaſt ſuſpected it,the Skin crack'd in the ſound edges,and the Fleſh in the Ulcer looked of a dark red colour. I dreſſed it with Epuloticks, hoping it would yet cicatrize: but the *Cuticula* afterwards crack'd in three places more,and the Patient ſuſpected the cauſe to be from a fault in the Bone; as in truth I ſhould my ſelf have doubted it,if I had not ſeen the ſeparation of that Eſcar; for the Fleſh appeared rotten under the broken *Cuticula*,and as the Ulcer healed in one corner,it broke out again there,or in another place. But this was from the *Intemperies* of the Part, and required again to be digeſted before I could hope to cicatrize it. To which purpoſe I dreſſed it with *unguent. baſilicon* and Præcipitate, let her bloud, purged and vomited her, preſcribed her a *decoct. ſarſæ*,put on a laced Stocking,and uſed my utmoſt endeavours to cicatrize it, as in ſuch Ulcers I have accuſtomed to do; but all to no purpoſe,the *Cicatrix* would not hold two days. I then left off the uſe of the laced Stocking, and deſired the Patient once more to give me leave to try whether it would cure without it; and to that purpoſe perſwaded her to keep her Leg upon a Stool level with her Body a few days, I hoping thereby to keep off Fluxion, and ſuppoſing, if I could once more breath out that groſs Bloud impacted in the Part, I ſhould be able to cicatrize the Ulcer; and if the Ulcer were cicatrized without Bandage,it would be the more laſting. I repeated the Fomentation, digeſted the Ulcer,and with a Solution of the Tincture of Vitriol in a *Decoct. equiſeti*,&c. applied Pledgits over bits of fine Lawn, and ſmeared the edges of the Ulcer with *unguent. tutiæ*,that it might not adhere to them. With ſuch like endeavours I cicatrized it firm, then put on a laced Stocking again, with a Compreſs under it ſpred with *unguent. tutiæ*,moderately to dry the *Cicatrix*, and dreſſed it once in two or three days for fear of the worſt. A dry Scale aroſe upon it do what I could. I anointed it with *Pomatum* to ſupple it; then raiſed it lightly up, and took it off: and ſo I did two or three times, and at laſt left it firm and natural as the reſt, and ſo it continueth to this day.

This Ulcer from its continuation might be *Annuum*; from its difficulty of cure, *Chironium*, or *Telephium*; from its rottenneſs of the Fleſh, *Noma*; from its calleus Lips, *Calloſum*; from its frequent cracking of the Skin after cicatrizing, *Dyſepulotum*.

4. Obſervat. of a *Phagedænous* corroſive Ulcer.

As I was paſſing one day through *Brainford* to *London*,I was deſired to ſee a poor Servant lying under an Abſceſs in his left Leg,the *Criſis* of a malign Fever. The Abſceſs poſſeſſed the outſide of his Leg,from the head of the *Fibula* to the Ancle,the Orifice being three fingers breadth below the ſaid *Fibula*. The Matter could not diſcharge it ſelf till it overflowed; therefore I applied a Cauſtick upon the lower part of the Tumour to give vent to it,and left him Dreſſings till

he

he ſhould be able to follow me. Some days after he came to Town: I viſited him, and found the lower Opening diſcharged the Matter well, as I had deſigned; but it was ſanious, and abounded in quantity more than was reaſonably to be expected from the Abſceſs. I endeavoured to deterge it with *mundif. Paracelſi* mixed with Præcipitate, and fomented the Part affected with a *Decoct. abſinth. ſalviæ, betonicæ, flor. roſ. rubr. bacc. myrtill. balauſt.* in red Wine; then applied *Emplaſtr. è bolo*, with a Compreſs wrung out of the Fomentation, rowled it up, and applied a Defenſative over the Knee to reſtrain the Fluxion: I alſo let him bloud, and purged him with an *infuſ. ſenæ, rhabarb.* &c. *cum ſyr. de ſpin. cervina.* But finding the Ulcer would not deterge, I laid it open the whole length, and ſeeing it ſordid, filled it with *pulv. Andronis*, applying the Mundificative upon Doſſils between the Lips, with an *Emplaſtr. è bolo* over all, and rowled it up. The third day after I dreſſed it again with the Mundificative as before, onely adding ſome *Merc. præcipitat.* to it. This method I continued ſome days, rubbing the looſe Fleſh with a Vitriol-ſtone, dipping ſome of the Pledgits in Præcipitate, and applying it under ſome of the Lips of the Ulcer which was undigeſted; then cut off ſome part of the Lips where they were very hollow and troubleſome, and put on a laced Stocking. Thus I deterged and diſpoſed the Ulcer to incarn under the Lips and elſewhere; and that it might do ſo, I put the Patient into a Traumatick Decoction, and vomited and purged him as occaſion offered. But after ſome days, obſerving the Lips of the Ulcer did not unite with the neighbouring Fleſh, nor the Ulcer contract as I expected, I made a ſearch with my Probe, and found the Fleſh, which was ſeemingly good, to be ſoft, and the Lips hollow and thin, and in ſome part callous. I dreſt them with that *unguent. æruginis, Cadmiæ*, &c. as it is ſet down in Ulcers with moiſt *Intemperies*, rubb'd the callous Lips with the Cauſtick-ſtone, and applied *unguent. baſilicon* to haſten the ſeparation of the Eſcar; ſuppoſing by theſe drying Medicaments to diſpoſe the Ulcer to Incarnation. But as they incarned and cicatrized in one end or part, the Fleſh became ſoft and rotten in another, and here and there the Lips were hollow, which I cut off, and thereby freed the Ulcer of them; and by the help of the former Sarcoticks I incarned it again: but frequently in the cicatrizing ſome part of the Ulcer would be corroded from the acrimony of the Humour, inſomuch that I was neceſſitated to dreſs this Ulcer with various Medicaments. In ſome parts of it I applied Pledgits in drying Waters, as *aq. calcis, lapidis medicamentoſi*, and Epulotick Unguents, to cicatrize it; while in ſome others I applied Detergents, yea and Digeſtives in others; and was not wanting the while by Mercurial Remedies and good Diet to contemperate the acrimony in the bloud: yet was it a moſt hard and difficult work. My Kinſman *Jaques Wiſeman* was my Aſſiſtent in the dreſſing of him, and ſaw this Ulcer with much ado cured: but he continued the uſe of a laced Stocking for ſome while after.

5. Obſervat.

Such an ill-conditioned Ulcer affected the Thigh of a Gentleman of about fifty years of age, of a full Body: it was the *Criſis* of a malign Fever. Doctor *Wederbourn* was the Phyſician. The Ulcer was of the compaſs of a Five-ſhilling-piece, but lay onely in the Skin, extreamly corroſive, with Lips ſtanding ſtiff up round the Ulcer: and although I took them down with Cauſtick, yet they aroſe again in the ſame form; and, being in a place difficultly managed by Bandage, would not cicatrize, but thruſt out in the middle little hard Excreſcences of red Fleſh like pins heads, which increaſing grew bigger, firſt one, then another. While I was endeavouring to deterge theſe Excreſcences, they became callous, united with one another, and made an unequal *Cicatrix*, notwithſtanding my endeavours by the Cauſtick-ſtone to rub down thoſe that roſe higher

higher than their fellows. At laſt it joyned it ſelf to the Lips round, making a firm and hard *Cicatrix*, which after ſome while caſt off a dry Scurf, and became ſoft as the natural Skin.

6. Obſervat. In the year after the great Plague I was ſent by Sir *Fran. Prujean* to a Gentleman of about fifty years of age, of a lean dry Habit of body, labouring under a corroſive Ulcer, running from the left ſide of the upper Lip near that Noſtril, cloſe along by the Noſe, to the great *Canthus* or Corner of the Eye, penetrating the Skin here and there deeper than elſewhere: it ſpred alſo without the edges of the Ulcer, making as it were a double furrow alongſt the ridge and ſide of the Noſe ſuperficially in the Skin. Theſe latter did not matter much, nor were they very painful. His Phyſician had purged him with an *infuſ. ſenæ, rhabarb.* and the like, in which were diſſolved *Manna* and *ſyr. de pomis purg.* and put him into a *Decoct. ſarſæ, Chinæ, corn. cervi, eboris, ſantal.* with vulnerary Herbs, alſo purged him once in four or five days with *calomel.* and *reſina jalap. cum Elect. lenitiv.* And thoſe days he did not purge, he took *ceruſſ. antimonii in confect. Alkermes*, with *pulv. corallii & perlar.* &c. I began my Dreſſings *cum unguent. tutiæ Vig.* with *Merc. præcipitat.* upon Pledgits in ſome parts where there wanted Digeſtion, and in others with *unguent. tutiæ* ſimple, and applied *unguent. Comitiſſ.* over all. The next day I took off the Dreſſings, fomented the affected Parts with a *Decoct. fol. plantag. roſ. rubr. balauſt. ſumach & aluminis* in Wine, and continued to dreſs the deeper Ulcers with the *unguent. tutiæ* and *Merc. præcipitat.* The other, which were more ſuperficial, I ſprinkled *cum pulv. è corn. cerv. uſt. balauſt. & croc. Martis aſtring.* and applied *unguent. Comitiſſæ* over all. By this method I dried up the upper Ulcer on the ſide of the Noſe, but the *Cicatrices* were unſeemly, as in moſt ſuch rebellious Ulcers they are, we being glad to dry them on any faſhion as we may. The other Ulcers alſo fill'd up with Fleſh, and afterwards cicatrized in ſome parts. The deepeſt Ulcers were alſo well diſpoſed to it. The ſeaſon of the year being hot, the Patient retired into the Country, taking the foreſaid Medicaments with him, they agreeing well with the Ulcer. His Wife, having often dreſſed him in Town, knew how to apply them, and dreſſed him in the Country, where he continued all the Summer. He not giving us the leaſt account of his Ailment, I concluded him cured: but in the Fall of the leaf he returned, and then I found the Ulcer much exaſperated, and diſcharging a virulent Matter, it having corroded deep the whole length from his upper Lip along the Cheek into the great *Canthus* dividing the lower Lid of the Eye, and was paſſing between the *Glandula lacrymalis* and the Eye: it had alſo ſpred beneath into that Noſtril, and had paſſed its Matter through; and in truth the caſe was moſt deplorable; for whatever theſe Ulcers may bear of ſharp Medicaments in another Part, here they would not: and poſſibly this was exaſperated by ſuch in the Country amongſt thoſe buſy-bodies. I endeavoured to recover it by Lenients powerfully drying without acrimony, ſuch as I had formerly uſed in the like caſe, and waſh'd the Ulcer with a Solution of a Salt drawn off from the flowers of Antimony *in aq. veronicæ*. Doctour *Prujean* was again conſulted, and Doctour *Bate*, alſo Mr. *Hollier* and other Chirurgeons. The Phyſicians repeated the former courſe, with ſome additions, and ſweat him, and after that preſcribed him a Diet of Milk, which he lived ſtrictly upon a long time. Many Topicks were propoſed by us, but they were onely drying Medicaments without acrimony, which agreed well with the Ulcer, and thoſe ſerved onely to palliate it. Whilſt I attended it, the Ulcer ſpred it ſelf under that Eye, fretting off the Muſcles ſo that the Eye was drawn by the contrary Muſcles to the external *Canthus*, and diſtorted ſo as it was eaſie to ſee the Optick Nerve. I was not able to

ſerve

ſerve him. He lived under Palliation till within this twelvemonth. The Humour afterwards affected the other ſide: what progreſs it made there I cannot tell.

7. Obſervat. of an *Herpes exedens.*

A Gentleman of about forty years of age, of a ſanguine Complexion and Plethorick, came to me with an *Herpes exedens* affecting the Eye-lids. It had been of ſome years growth: it began on the middle of the upper Eye-lid near the *Cilia* or edge in a ſmall Puſtule, (as it is deſcribed in the Chapter of thoſe Tumours,) and in continuance ſpred along the edge to the external *Canthus*, where it eat deeper into the Skin, and by eroſion cauſed an Ulcer of a round figure the breadth of a Silver-peny, eating into that corner of the *Membrana conjunctiva*, and thence the length of the lower Eye-lid, conſuming it downwards, leaving the neighbouring Parts ſcirrhous. Its Eroſion in theſe Parts was increaſed by the continual Fluxion from the inflamed Eye: for the upper Lid where the *Herpes* firſt aroſe was not ſo much concerned, the original *Herpes* lying there not unlike a *hordeolum*. Upon view of this Ulcer I deſired a Conſultation, and to that purpoſe Doctor *Tho. Cox* and Mr. *Hollier* met me. *Collyria* of a refrigerant and exſiccant quality were preſcribed, Venæſection in the Arm, Purging with *decoct. epithymi*, &c. and the ſecond day after the external Jugular was opened, and about ten ounces of bloud was taken: Fontanels were alſo made *inter Scapulas*, &c. a Seton was alſo adviſed. The Patient thus fitted took a Journey upon extraordinary occaſions into the Country. About a month after he returned, and put himſelf again into my hands. I treated the Ulcer with Epuloticks of various ſorts and forms, applied Frontals to intercept the deſcent of Humours, purged him with *Calomel. cum rhabarbaro*, preſcribed Vulneraries in a *decoct. ſarſæ, lign. lentiſcin.* &c. with Balſamicks to contemperate the acrimony of the Humours. This method not ſucceeding, we conſulted a Phyſician, who preſcribed cooling Juleps of diſtill'd Milks, *&c.* But he growing hereby indiſpoſed in his Stomach, and the Ulcer raging, he returned to his former Preſcriptions; and by the taking *Bezoard. mineral.* thoſe days he intermitted Purging, and by the application of *unguent. calaminar.* he was reſtored to better health, and the Ulcer more ſedate: upon which he ſupplied himſelf with ſome of the ſame internal and external Remedies, and retired into the neighbouring Country. About ſix weeks after he ſhewed himſelf to me. The Ulcer in and near the external *Canthus* was almoſt cicatrized, and the other Parts well diſpoſed. He then recruited himſelf with more of the ſame Medicaments, ſince when I have not ſeen him; but hear it increaſed in the Country, and he hath almoſt loſt the ſight of that Eye.

CHAP.

Chap. XI.

Of Ulcers with Varices.

WE have already treated of *Varix* as it affects the Thigh, Leg, *&c.* and have there ſhewed you that it is a Dilatation of the Veins with groſs Bloud: we alſo have there delivered the Cauſe and Signs, and how it differs, as dilating ſome one Vein, or all the branches of that Vein to the very Capillaries; and ſo the *Varix* may lie deep between the Muſcles and Skin, or more ſuperficially. I have alſo there ſhewed the advantage and diſadvantage that may happen in repreſſing them. It remaineth now that I ſay ſomewhat of them as they are ulcerated by the acrimony of the Humour, or by ſome accident of Bruiſe, Wound, *&c.* whereby they become painful, inflame, and ſwell the Member.

Cure. The *Cure* of theſe Ulcers with *Varix* are real, or palliative. The Real or perfect Cure propoſed by the Ancients I have delivered to you in the Chapter of a *Simple Varix*: it is by making an Inciſion in the Skin, and taking up the Vein, and tying it, *&c.* But this way hath not been admitted (to my knowledge) amongſt us; nor have I often ſeen that a Varicous Ulcer could be cured by cutting off the branch leading to the Ulcer, there being commonly more Veins concerned in it.

The Palliative Cure conſiſts in dreſſing the Ulcer with Digeſtives & Deterſives, according as the Ulcer is ſanious or ſordid, and the while by good Bandage or a laced Stocking to repreſs the Humours impacted in the Part; by which Bandage the Lips of the Ulcer are diſpoſed to cicatrize with the Ulcer. I call this method Palliative, for that it commonly laſts no longer than the laced Stocking is worn. In the Cure of theſe Ulcers, if there be *Plethora*, it may be neceſſary that the Body be purged, and a Vein opened.

1. Obſervat. A Woman of a full Body, aged 54 years, was grievouſly pained with an Ulceration on her right Leg. Several Medicaments had been ineffectually applied. I being conſulted ſaw the Ulceration large, and the Capillary Veins lie dilated ſuperficially in the Skin; from whence I judged the Ulceration to ariſe. The Leg was much ſwelled, and ſomewhat inflamed. I dreſt the Ulceration with *unguent. tutiæ Vigon.* applied over it a mixture of *unguent. nutritum* and *populeon*, rowled it up with Compreſs and Bandage, and beſpake a laced Stocking againſt the next day; which being then laced on, and the former method of Dreſſing repeated, the pain ceaſed from that day, and, the Humours being repreſſed by virtue of the Bandage, the Ulceration cicatrized in ten or twelve days.

2. Obſervat. In the year 1654. I was ſent for to an Inhabitant of this City, who complained of his ſoar Legs, and that his Chirurgeon who uſed daily to dreſs them was lately dead: he deſired me I would ſupply his place, and accordingly he would allow me the ſame Salary. I unrowled his Legs, and ſaw the Ulcers lying in the Skin in ſeveral places amongſt the *Varices* without Inflammation or Swelling; but towards night they ſwelled, and were painful. I acquainted him with the nature of his Diſeaſe, and propoſed the Cure by laced Stockings. I dreſſed the Ulcers with *unguent. diapomphol.* and rowled them up. Within a day or two his Stockings were brought him, and after I had dreſſed his

his Legs they were put on, with Compreſs under them upon the Ulcers. There were alſo pieces of Vellum laid between to defend them from the wrinkles of the Stockings. By the wearing of theſe the Humours were reſtrained, and the Ulcers diſpoſed well to cure. I made him a Fontanel in each Leg, and left him ſome Epuloticks to finiſh it, which they effected in few days. The Iſſues he continued to good purpoſe, for he is alive to this day.

3. Obſervat. of a varicous Ulcer.

A Nobleman of *Scotland*, of more than ſeventy years of age, being diſeaſed here in Town with a large varicous Ulcer in the inſide of his left Leg, was commended to my hands by Sir *Fr. Prujean*. The Ulcer reached from the Gartering to the Small of the leg deep amongſt the Fleſhy parts; it was crude and undigeſted. I dreſſed it with *unguent. baſilicon* and Præcipitate, applied *unguent. tutiæ* ſpred as an Emplaſter with a Compreſs wrung out of *Oxycrate*, and with good Bandage rowled it up from the Foot to the Knee. The next day I fomented it with a Decoction of *flor. roſ. rubr. bacc. myrtill. balauſt. nuc. cupreſſ.* in Wine and Water; then dipt the Pledgits ſpred with *baſilicon* in Præcipitate, and applied *unguent. tutiæ* as before, with Compreſs and Bandage. The third day I opened it again, and dreſſed it as before. The fourth day after, finding the Ulcer well deterged, I dreſſed it with *unguent. baſilicon* mixed with Præcipitate; and after I had digeſted it, put on a laced Stocking; then incarned with this, ℞ *aloes & thuris an.* ℥j. *aſſæ fætid.* ℥iß. *mellis deſpumati* ℥vj. *Miſc. & fiat Unguentum.* I afterward added a third part of *ungnent. è plumbo* to one part of this Sarcotick, and by the help of the Vitriol-ſtone, and Pledgits dipt in a ſtiptick Wine, cicatrized the Ulcer. Mr. *Pearce* was his Lordſhip's Apothecary.

4. Obſervat. of a *Varix* in the right Breaſt.

One having been troubled with a ſore Breaſt about a year after Child-bed, it growing more ſwelled and ulcerated, ſhe ſent for me. It was hard, without Inflammation or diſcolouring in the Skin, & diſcharged a well-concocted Matter out of the Nipple and ſome ſmall Openings near it. I wondred what ſhould be the reaſon it did not cure. At laſt, in handling the Breaſt, I felt a *Varix* lying under the Skin: it felt like Network. I dreſſed the Ulcer ſometimes with *unguent. baſilicon*, and others with *unguent. tutiæ*, applied *Emplaſtr. è bolo* over the Breaſt, with Bandage to ſupport it, and adviſed the wearing of fine Tow ſprinkled with Ceruſe under that *Axilla:* by which method it was afterwards cured in a month's ſpace or thereabouts.

5. Obſervat. of a varicous Ulcer with great tumefaction.

The laſt year, while I was putting theſe Obſervations of Ulcers with *Varices* together, a poor Woman was brought to me out of the Country, ſuſpected to have the *King's Evil* in one of her Legs. The Swelling was great, and the Ulcer large and ſo did. In handling of it, I felt the Veins dilated under the Skin in the Fleſhy parts of the Leg from the Gartering to the Ancle, by which it was evident that the Ulcer was varicous; upon which account I undertook it *gratis*, and commended her to one of my Servants to cure, with directions to keep her Chamber, and that he ſhould the while foment and dreſs her Leg after the ſame method ſet down in the former Obſervations, and by Bandage diſpoſe it for a laced Stocking. Accordingly he fomented the Leg, dreſſed the Ulcers with Deterſives, and with Compreſs and Bandage rowled it moderately ſtreight from the Foot to the Gartering. After he had thus rarefied the pituitous Humours which were impacted in the Part, and deterg'd the Ulcer, he laced on a ſtreight Stocking with a Compreſs upon the Ulcer, by which the bloud was ſtreightned in its paſſage, and the Humours repreſt, alſo the Lips of the Ulcer were brought even and cicatrized in few weeks without Purging or Bleeding, and this prodigious ſwelled Leg was reduced to its natural ſtate. Thus may the greateſt Swelling accompanying varicous Ulcers be removed, and the Ulcers palliated, if not cured: for it is confeſſed that they return again for the moſt part upon the diſcontinuing the laced Stocking.

Chap. XII.

Of Sinuous Ulcers.

HItherto I have treated of Ulcers which take their names from the Humours which affect them: I ſhall now diſcourſe of that Ulcer which derives its name from its hollowneſs, and is called a *Sinuous Ulcer.*

Cauſes. *Sennertus* places the Chapter of *Sinus* next to that of a *Phlegmon:* and indeed they frequently ariſe from ſuch, eſpecially where the Orifice hath not been ſufficiently large to diſcharge the Matter: nay, in ſome great Abſceſſes, where the Cavity hath been very large, there, though the Aperture be great, yet for want of good Compreſſion, and diſpoſition in the Humours, the Skin unites ſo unequally with the Fleſh underneath, that it maketh ſeveral *Sinus's,* and doth as it were *cuniculos agere,* make Coney-burrows. Sometimes Abſceſſes do ariſe from within, *viz.* from the Lungs, *&c.* and paſs their Matter externally under the Arm-pits, or through the Back, Breaſt, or Sides; or from other *Viſcera* in the lower *Venter,* and raiſe Abſceſſes amongſt the external Muſcles of the *Abdomen,* &c. Of which I ſhall give you ſome Inſtances, having already occaſionally treated of the other ſort in a Treatiſe of *Gun ſhot.*

The Antecedent Cauſe may be ill Diet, *&c.* whereby the Humours exceed in quantity, or evil quality, and being too long retained in the Abſceſs, get a corroſive diſpoſition, and render the Ulcer ſinuous.

Difference. Theſe Ulcers differ from one another, as they are either ſtraight, or crooked; deep, or lying only under the Skin; or have one or more *Sinus's.* They may be diſtinguiſhed from a *Fiſtula,* in that the latter is callous, which theſe are not, unleſs it be in the very Orifice.

Signs. The *Signs* of Sinuous Ulcers may be taken from the preceding Cauſes, whether it be a tranſlation of Matter from within outward, or from Phlegmon, or other Abſceſs, Wound, *&c.* The *Sinus* may alſo be judged by the ſearch of a Probe or Wax-candle. The quantity of Matter will alſo ſhew the largeneſs of it.

Prognoſtick. Sinuous Ulcers of long continuance are of difficult Cure, by reaſon of the weakneſs of the native Heat in the Part, which rendreth it incapable of aſſimilating its proper aliment, and ſubject to the receiving ſuperfluous Humours. Alſo if the *Sinus* run under the Joynt, Nerves or Tendons, where it may not be ſafely laid open, the Cure is more hard to obtain.

If the *Sinus* proceed from a tranſlation of Matter from within the Body, you cannot hope to cure it till the diſeaſed *Viſcera* be healed, during which the Patient is in great danger of a *Maraſmus*; but if the ſinuous Ulcer diſcharge little Matter, and that well digeſted, and be in a place where it may ſafely be kept open, the Cure is hopeful.

Cure. In the *Cure* of theſe Ulcers Authors have propoſed four Intentions. The firſt conſiſts in a regulation of Diet and the other Non-naturals, accordingly as it hath been ſet down in the general Diſcourſe in this Treatiſe.

Secondly, that the Humours be evacuated and contemperated. If there be *Plethora,* the Evacuation will be neceſſary by Purging and Venæſection. The contemperating of the Humours may be by Traumatick decoctions and other Balſamicks, as all along hath been propoſed.

The third is effected in prohibiting the Humours to flow into the Ulcer, and that

that by Revulsion, Interception and Repulsion: which hath been sufficiently spoken of in the Discourse of *Tumours* in general.

The fourth Intention concerns more immediately the Cure of the Ulcers, *viz.* by the removing of those accidents of pain, inflammation, tumour, *&c.* without which there is no hope of Cure. In order to this work, you must consider the *Sinus*, how the Matter may be best discharged. If the Orifice be in the declining part, inlarge that: but if the *Sinus* run beneath downward, your best way will be to open that in the declining and lowest part by Knife or Caustick; so shall the Sinuous Ulcer above be disposed to cure. But if the *Sinus* do run under considerable Vessels, or be in such a place where you cannot safely lay it open, you ought then to inlarge the Orifice, and put the Member in such a position as may dispose the Matter to flow forth, and by Compress and Bandage contribute your endeavours thereto. Having thus made way for the discharge of Matter, you are then to deterge the Ulcer with Medicaments proportioned to the impurity of it. The most usual are, *unguent. Apostolor. mund. Paracels. & ex apio:* to which may be added *Merc. præcipitat.* &c. If there be a necessity of Injections, you may with a Syringe cast in some of these following Liquors; but do not stop the Orifice the while, for thereby you will dilate the *Sinus*. The milder may be, a *decoct. hordei, cum syr. de ros. sicc. mell. magist. nost.* Or, ℞ *summitat. centaur. min. agrimon. equiseti, pimpinellæ, an.* M j. *rad. aristoloch. rot. rad. iridis, an.* ʒij. *myrrhæ, sarcocollæ, an.* ʒiij. *coq. in aq. font.* ℔ij. *colat. adde spir. vini* ʒiv. *mell. ros. ar. q. s.* Other of this sort you may see in the Chapter of Sinuous Ulcers in *Gun-shot Wounds*. If the Ulcer arise from some Abscess within the body, it will not be safe to use Injections, till you can satisfie your self how they will come out again. Therefore in such cases you must consider, as above said, how you may give a vent to the Matter: for while that is retained, there is no hope of detersion. But that being conveniently made, you may keep it open by *Cannula*, or with a Pea threaded, as a Fontanel, till Nature shall be disposed by the Physician's help to heal the internal *Viscera*, and then the external Ulcer will heal of it self under the Pea, if you leave it not timely out.

During the Cure of all these Ulcers, you ought to use Fomentations discutient and drying proportionably as the case requireth; *viz.* of *summitat. absinth. majoranæ, hyperici, betonicæ, flor. cham. ros. rubr. balaust. bacc. myrtill. nuc. cupress.* &c. in Wine and Water, with the addition of Brandy.

1. Observat. of a Sinuous Ulcer in the Leg.

A Married Woman aged thirty four years, having layn a great while lame with a pain in her right Leg, supposed a *Rheumatismus*, after frequent bleeding, purging, *&c.* it swelled on the outside from the Gartering to the Heel, and discharged its Matter near the Ancle. Some neighbouring Chirurgeon & Apothecary were imployed, who dressed it and prescribed her Physick accordingly, and after some time permitted the Ulcer to close, endeavouring to perswade her she was cured. But it swelling soon after with Inflammation, I was sent for, and saw the Ulcer near closed: but the quantity and ill quality of the Matter shewed it sinuous; and upon search I discovered it so to the very Gartering, also a *Sinus* running down towards the Heel. I dilated the Orifice with Gentian roots, applied a Caustick about an inch and a half in length upon the *Sinus* above, and gave vent to the Matter, dressing it up with Lenients, as *unguent. basilicon cum ol. ros.* and after the fomenting it, applied *cerat. Galeni* with Compress and Bandage, supposing the Matter would be intercepted, and the *Sinus's* beneath thereby disposed to cure. But after separation of this Eschar, the Ulcer appeared hollow under the lips; and the Matter flowing from the remaining *Sinus* above, put me upon a necessity of laying

that open by a Snip with a pair of Sciſſors: and after all my endeavours, I was glad to lay open the lowermoſt *Sinus*, from the Ancle downwards, before I could diſpoſe it to cure. The ſeveral Cavities being laid open, I dreſſed them with Digeſtives, Deterſives and Epuloticks, accordingly as they required, then cheriſhed the native Heat in the Member by good Fomentations, as above in the method of Cure is ſet down; and by Intercipients and Bandage reſtrained the influx of Humours.

Caution in making Fontanels.

To add to this poor Woman's miſery, ſhe had a Fontanel formerly made upon the Tendon of the *Biceps*, which had cauſed a contraction of her Arm, and a hard Tumour on the inſide of the *Radius*, with great pain and convulſion in her Hand and Fingers. This very pain kept her watching day and night, exceedingly exhauſted her ſpirits, and put ſuch a Ferment in her bloud, as it ſeemed to me difficult to cure her Leg whilſt this diſturbance continued on her. Wherefore I began with the Embrocation of the Arm, and ſo downwards, with this; ℞ *unguent. nervin.* ℥iij. *ol. lumbric.* ℥ij. *ol. vulpin.* ℥j. *ol. origani, la-vend. ana q. ſ. Miſc.* and applied over the Tumour on her Wriſt a mixture of *Emplaſt. diachyl. cum gummi & de mucilag.* I alſo preſcribed her an Infuſion of *Sena*, &c. with Manna and *ſyr. de pomis purgant.* and that night one grain of *laud. in conſ. anthos, & ſyr. de garyophyll.* and a cordial Julep of *aq. ceraſor. nigror. tiliæ, lil. convall. cinnamomi, confect. Alkerm. & ſyr. è ſucc citr.* of which ſhe drank frequently. She was alſo purged once a week with *Calomel.* and at other times took *Antimon. diaphoret.* &c. Thus I reſolved the Tumour in her Wriſt, and the contraction of her Arm, and reſtored the uſe of her Hand: during which the Ulcers in her Leg digeſted, incarned and cicatrized, according to the method preſcribed in the general Chapter of *Ulcers*. Her Leg being extreamly emaciated and weak, I adviſed the bathing it with Fleſh-broth wherein had been decocted emollient Herbs; by which it afterwards grew ſo full, that I was neceſſitated to put her on a laced Stocking; and thereby the ſwelling was reſtrained, and ſhe recovered ſtrength to walk on it very well.

2. Obſervat. of a Sinuous Ulcer penetrating the right Breaſt.

A Maid-ſervant, aged twenty ſix years, had a ſmall Phlegmon on a part of her right Breaſt tending to Suppuration. I, ſuppoſing it ſimply ſuch, confidently undertook the Cure; and having ſuppurated it by the application of *unguent. baſilicon*, open'd it by Cauſtick, and diſcharged a purulent Matter; which increaſing daily with diminution of the Inflammation and Tumour, I made a ſearch with a Probe, and penetrated into the cavity of the *Thorax*. I then diſcourſing with her, informed my ſelf that ſhe had been long diſeaſed with a Cough and frequent Shortneſs of breath. I was much aſhamed of my confident undertaking it. The rarity of the caſe deceived me, and as many as afterwards ſaw it, every one judging the Ulcer ſimple. But its penetrating (as I ſaid) ſhewed the Cure difficult, and the work of time. Therefore I fitted it with a *Cannula*, which I retained with a ſnip of Plaiſter, and applied a thin piece of Sponge preſt out of Wine upon it, with Compreſs and Bandage over it, directing the dreſſing it twice a day. After I had thus healed up the reſt of the Ulcer, I left out the *Cannula*, put in a Pea, and kept it as a Fontanel, till Nature ſhould diſpoſe the *Viſcera* within to a better condition. But ſhe, growing hectical, removed into the Country with internal Preſcriptions and directions to dreſs her ſelf; where I ſuppoſe ſhe is ſince recovered of her Fever.

3. Obſervat. of an Ulcer penetrating the Breaſt.

Some while ſince I was accidentally conſulted in the Country by a Chirurgeon there about an apoſtemated Breaſt, the biggeſt I ever ſaw. The Patient was a Woman of about forty years old: ſhe had a Cough, and was oppreſt with Difficulty of breathing. The Chirurgeon opened her Breaſt in the declining part, and diſcharged a proportionable quantity of fœtid Matter. She was ſomewhat relieved by it; but it penetrated into the *Thorax*, and the large diſcharge of Matter ſoon waſted her.

A

A Child of about four years of age was brought to *London*, supposed to have the *Kings-Evil*. It had three Ulcers lying near one another on his left Side, between the two lowermost of the true Ribs: they were accompanied with Inflammation and Excoriation. He was much emaciated, and afflicted with a Cough and Shortness of breath. Upon search with a small Wax-candle into the upper Orifice, I penetrated between the Ribs, and felt the edge of the uppermost foul. The other Ulcers were made by the insinuation of the Matter for want of timely inlarging the first Orifice. I dress't the Excoriation with *unguent. album camph. & cerat. Galeni*, and applied some of the mild Caustick, by which I inlarged those Orifices. After the separation of the Escars, I dressed the lowermost with *unguent. tutiæ*, and cured them. The uppermost I kept open as a Fontanel with a Pea, for discharge of the Matter from within, not concerning my self in the exfoliation of the Bone, but leaving that to Nature, which seldom fails where the Ulcer is kept well digested. During my proceeding thus with the Ulcers, the Child was prescribed a Decoction of *Sarsa* with Pectorals, and his body kept open with *syr. de rhab. in aq. germ. querc.* somewhat of *Calomel.* was also prescribed, *ceruss. Antimonii*, &c. and the Child recovered. But while the Attendants grew secure and careless in dressing the Ulcer, the Pea slipt out, and the Orifice closing in the Matter, he was seized with a Cough, Difficulty of breathing, and Fever. Upon which account I open'd that Ulcer again, and relieved him. He went soon after into the Country, and by the foresaid method recovered.

4. Observat. of Sinuous Ulcers on the left Side penetrating.

A Man of about forty years of age labouring under a Fever in the Country, it terminated in some Abscess within the Breast, and passed its Matter at last into the right *Axilla*, raising a large Abscess there, which, being left to Nature, made its way through the Skin; but not having Opening sufficient nor timely, the Matter invaded the *interstitia* of the Muscles, and spred it self over all the Breast and Side, and did not discharge it self outwardly otherwise than as it overflowed: by which means the Abscess became very large, and the quantity of Matter had well-nigh exhausted the Patient. It was my chance to come into that Country, and being desired to give him a visit, and seeing the cause of it, I presently made a long Incision in the lower part of his Breast, and gave vent to the Matter; and afterwards made another Opening from the Ulcer in the *Axilla* downwards, where the Matter was streightned by a hard *Callus*. In other parts, where the Matter was also contained, and could not be discharged by the former Openings, I applied Causticks, and the next day divided the Escars, thereby giving way to the remaining Cavities to empty themselves. This being done, I left Medicaments and directions for the dressing them: *viz. unguent. basilicon* for Digestion; *mundificat. Paracelsi*, *Merc. præcipitat.* and Vitriol-stone for Detersion; *unguent. sarcotic.* to incarn; and *unguent. tutiæ & desiccativum rubr.* for the cicatrizing the Ulcer. For whatever people pretend of Cure by Injections, the way is slow and hazardous, they often rendring these Ulcers more sinuous, and being of use only where the Ulcer may not be opened by reason of the considerableness of the place. Here in this case, after the Matter had free vent, the Ulcer cured most easily.

5. Observat. of a Sinuous Ulcer in the Breast.

A Daughter of a substantial Citizen laboured under an Abscess in the Region of her left Kidney, and was long treated by a bold Empirick, who promised Cure: but after all his endeavours, the Child languishing under the Ulcer, sometimes by reason of the great discharge of Matter by Urine, and othertimes through the suppression of it, great pains were stirred up within the Body, and outwardly in the Abscess. I, being consulted, observed that the external Abscess took its original from the Ulcer within the Kidney, and required other manner of dressing, its Cure being the work of time. I proposed

6. Observat. of a Sinuous Ulcer penetrating the left Kidney.

poſed the laying it open to the very Part where the Matter paſſed forth from the Kidney. To which purpoſe I applied a Cauſtick upon the *Sinus* below, divided the Eſcar, and dreſſed it up with Lenients. Then after ſeparation and digeſtion of the Ulcer, ſearching the ſame with my Probe, I found the *Sinus* run up above the Orifice; which being alſo laid open, I diſcovered the paſſage into the Kidney, and felt the ſide of the laſt ſhort Rib bared by the Matter in its paſſing out. I dreſſed the Ulcer with *mundif. ex apio*, and healed up the remaining *Sinus's* above and below to the very Aperture. While I was doing this work, Dr. *Barwick* was conſulted to help us in the Cure by Internals, who preſcribed a Traumatick decoction of *Sarſa*, &c. with the more temperate Plants, and Balſamick pills to contemperate the Humours. During my diſpoſing of this Ulcer to retain a *Cannula*, the Matter diſcharged by Urine in great quantity, and the Patient was as ſorely afflicted, and had the ſame Symptom that others have who are diſeaſed with Ulcers or Stones in the Kidney; but after vent was given by a ſhort *Cannula* of Lead, ſhe recovered. Having continued the uſe of the *Cannula* ſome months, I removed it, and kept a Pea juſt in the Opening, and by red Sparadrope and Compreſs retained it on; then left her to her Mother to dreſs, and only called ſome times when they gave me notice of their wants. After a year or thereabout that ſhe had kept this Fontanel open, the internal pains and diſcharge of Impurities ceaſed, and ſhe grew more fleſhy and ſtrong. She went alſo daily to a neighbouring School, where ſhe was exerciſed in Dancing, *&c.* After the ſpace of two years or thereabout, the Ulcer ſeeming not to matter more than might be expected from a ſmall Fontanel, the Mother caſt out the Pea, and permitted it to heal up. But being ſoon alarm'd by the old Accidents which returned upon the Child, ſhe ſent for me. I opened it again, and left them to keep it ſo. Dr. *Barwick* was alſo again conſulted, who repeated the former method with ſome little alteration. The Ulcer was afterward kept open near three years, during which ſhe repeated her courſe of Phyſick Spring and Fall, and was frequently brought to me. At length I ſeeing her well grown and of a fleſhy and healthy Complexion, and the Fontanel in a manner dried up, I adviſed them to throw out the Pea, it being of no uſe. They did ſo: from which time the Patient hath continued ſtrong and well, and is ſince married.

7. Obſervat. of a Sinuous Ulcer penetrating the right Side.

A young Gentleman of about ten or eleven years of age was afflicted with a Sinuous Ulcer on his right ſide of the Spine. It had taken its original from a tranſlation of Matter ariſing from within his body whilſt he lay ſick of a Fever in the Country. It came at length to maturation, and was let out by a neighbouring Chirurgeon: but it proving difficult of Cure, he was brought to Town. He was hectick, and diſeaſed with a Cough and Shortneſs of breath, the Abſceſs mattering much, but eſpecially when he bowed his body downward, or lay in his bed upon the contrary Side; alſo in lying upon his Belly the Matter ran forth ſome ſpoonfuls, and upon holding his breath it blubbered forth, which ſhewed it came from within. Yet, for that ſometimes upon preſſing with our hands upon the Muſcles of that ſide the Spine, there diſcharged Matter, we were apt to think it lay originally between the Muſcles of that place. Doctor *Micklethwait* was conſulted, and entertained their Phyſician, and was often preſent at the dreſſing the Patient. The Apertion was ſmall, and obſtructed by a *Callus* and luxurious fleſh within the Ulcer, whereby neither the Probe nor Wax-candle could make any conſiderable way. We were ſatisfied that there were more *Sinus's* than that tranſverſe the Back, yet by the ſearch of a Probe we could make no diſcovery: but about three days after a redneſs in the Skin ſhewed us a *Sinus* lying near the *Os ilion* of about two inches long, the Skin ſeeming thin. I opened it with a mild Cauſtick,

and

and having divided the Eſcar, I paſſed in a Probe from thence towards the Spine: but that not ſatisfying me, I applied a Cauſtick upon the old Orifice, and another lower, whence I had preſſed out Matter. Then dividing them, I fill'd them with Præcipitate; and by rubbing into thoſe Eſcars afterwards with the Cauſtick-ſtone I penetrated into the *Sinus's.* One of theſe diſcharged the Matter which flowed that way; and the other ſerved our purpoſe to diſcover the *Sinus* penetrating under the uppermoſt falſe Rib towards the Breaſt; which I dilated, and by deterſion enlarged the paſſage, then fitted the Ulcer with a *Cannula* of Lead, with an Emplaſter, Compreſs and Bandage over it, by which the Matter diſcharged very well, and the Patient was relieved in his Cough, and recovered his appetite. The other Apertures, having emptied the external *Sinus's*, were deterged and cured. After the uſe of the *Cannula* ſome days, perceiving looſe Fleſh to ariſe in the Ulcer, which hindred the diſcharge of Matter, and that the activeneſs of our Patient cauſed the *Cannula* frequently to ſtart out of the *Sinus,* and ſometimes ſit uneaſie, I left it out altogether, and put in a large Pea, with a Thread in it to pull it out at pleaſure. By this, with application of the common Sparadrope for Iſſues, this Ulcer was as a Fontanel kept open, and the Matter plentifully diſcharged thereby; his Habit of body was alſo by the Phyſician's preſcriptions of Vulnerary decoctions and Balſamicks, with lenient Purgatives, ſo well reſtored, that he returned into the Country with his Parents. Some while after coming again to *London* with them, I gave him a viſit, and found him fat and well recovered. I did not ſee the Ulcer, but was aſſured from himſelf and his Servants, that it was kept open with much eaſe, and that it mattered but little. I adviſed then the keeping it ſo while any Matter flowed to the Part: which they did, and thereby cured him.

A TREATISE OF THE DISEASES OF THE ANUS.

DISEASES

OF THE

TRACHEA

OF THE DISEASES OF THE ANUS.

The Third Book.

CHAP. I.

Of Hæmorrhoids.

VARIX in general hath been handled in one of the foregoing Treatises. But becauſe there is one ſort of *Varices* more important than the reſt, I mean the varicous Swellings of the *venæ hæmorrhoidales*, I thought it convenient to diſcourſe of them particularly by themſelves. Theſe happen very often both in men and women, ſo as ſometimes to break and void bloud; other-times only to ſwell and diſtend. But the conſequences of theſe are very great, both as to the duration and intenſeneſs of the pain, and alſo as to the Tumours and Ulcers that ariſe from them. Theſe Tumours are ſometimes phlegmonous, ſometimes ſcirrhous, ſometimes cancerous; many times they are ulcerous and fiſtulous.

I ſhall therefore take occaſion from that Chapter of *Varix*, to add in this place an intire Diſcourſe of the *Hæmorrhoids*, together with all the Diſeaſes that are of the ſame kindred and family with them: in which if I ſwerve from that accuracy of method which Learned men may expect in the diſpoſition of the Parts of this Book, I hope the young Chirurgeon will at leaſt think that fault ſufficiently recompenſed by having all the troubleſome Diſeaſes of that Part brought at once into one view.

The perſpicuity of this Diſcourſe will depend much upon a true notion of the conſtitution of the *Anus*, or uttermoſt Exit of the *Inteſtinum rectum*. In which place it is bound about with a Sphincter-Muſcle, the contraction of which ſhuts it ſo, as to detain within the Guts whatever Excrements fall down thi-

ther, till ſuch time as Nature, being ſtimulated either by the fulneſs or provocation of matter, doth voluntarily relax it, and by the help of ſeveral pairs of Muſcles dilate it, to make way for the diſcharge. All theſe things put together make up that organical Part which we call the *Anus* in a compound ſence; though in a ſtrict ſignification it denote only the extremity of the *Inteſtinum rectum*, to which all theſe things belong, and for the motion of which they are all deſigned. Theſe Muſcles, and eſpecially the *Inteſtinum rectum* it ſelf, are fed by ſeveral Arteries. As, firſt, the *Arteria meſenterica inferior*, which, being almoſt wholly deſigned for the *Inteſtinum rectum*, doth ſpread branches all over it copiouſly, and very particularly to that end which we call the *Anus*: and, ſecondly, the *Arteria hypogaſtrica* doth ſend branches to the *Anus*, but chiefly to the Muſcles belonging to it. Theſe Arteries bringing Bloud hither, have proportionable Veins deſtined for its return; one of which is the *hæmorrhoidalis externa*, uſually ſo called, which is a branch of the Hypogaſtrick vein, and correſponds with its cognominal Artery. The other indeed moſt important Veſſel is the *hæmorrhoidalis interna*, which receiving the Bloud from all the parts of the *rectum*, and eſpecially about the *Anus*, unites into a ſlender Trunk, which paſſing along the Gut by degrees creeps into the Meſentery, and uſually inſerts it ſelf up between the Meſenterical branches of the *Porta*, ſometimes into the right, ſometimes into the left, and ſometimes into the Trunk of the *Porta*. More rarely it forſakes this courſe, and is inſerted into the Splenick branch, ſometimes without, and ſometimes within the Spleen. This laſt caſe happens but ſeldom: yet ſurely it happened to thoſe that firſt conjectured this Vein to be the Evacuator of the melancholick Humours of the Spleen. How elſe ſhould they gueſs that a Veſſel ſo viſibly inſerted either into the Trunk of *Porta*, or at leaſt into the Meſenterick branches, ſhould derive Humours rather from the Spleen than the Liver?

But ſince the doctrine of the Circulation hath quite taken away the foundations of this Hypotheſis, we are of late taught clear a new Leſſon, *viz.* That the Bloud deſcends hither only by the Arteries, chiefly by the *meſenterica inferior*, by which being caſt into the middle and inward Coats of the Gut, it is carried back by the Vein aforeſaid. Now if any man ask me the reaſon of the frequent Tumours and Apertions of this Vein, I ſhall give him this account. Firſt, that it is ſet in a depending Part; which reaſon is common to it and the Legs, both of which are more ſubject to *Varices* than other parts of the Body. Secondly, that the Legs and all muſculous parts of the Body, when they receive Bloud into them, do contract themſelves more vigorouſly for the expulſion thereof, and promoting of its aſcent, than the Gut, which is a more lax part, and contracts with leſs force at all times, ſave when Nature aims at an expulſion; in which caſe the tendency of Nature is downwards, quite contrary to that of the motion of the Bloud, and rather hinders the return than furthers it, binding up the Bloud in its own Veſſels. Thirdly, the Veins hereabout are in themſelves ſo very ſmall that they have no Valves, ſo that Bloud being detained in them, is not ſo eaſily carried up or hindred from reſtagnation, as where Valves are frequent. Fourthly, the place is ſo often moiſtned by the frequent afflux of Humours, that it is very forward to increaſe the natural Laxity of the Part, to dilate the Veſſels, and to provoke an afflux of Humours; by virtue of which ſometimes ſpongy Fleſh is thruſt out, and ſometimes Tumours of other natures generated. Fifthly, that theſe Veſſels being here not only depending, but alſo cutaneous, ſcattered in a very thin tender Skin, are apter upon the impulſe of Bloud to fly open, than where they are bound in by a thick ſtrong cover: and for this reaſon the Noſe alſo (if it be ſeaſonable to ſpeak of it in this place) is apter to bleed than other parts.

The natural construction of the *Anus* being such as I have described, the preternatural may easily be inquired into. For if by any Fermentation or Ebullition of the Bloud any sharpness so affect it as to cause a stagnation in this place, presently the Veins, being not sufficient for the discharge, grow varicous: and if the Humour by its sharpness or thinness, or both, stimulates Nature, by this means the *rectum* is always offering to squeeze and contract it self, and binds up the Vein so that the Bloud cannot ascend, but is by the violence of the motion thrust back again, to the bursting open of the mouths of the Vessel. If the Coats be thick or apt to sponginess, then the Parts swell, and either the Vessels themselves appear blue and in clusters like Grapes, or else Flesh groweth about them, and makes *Ficus*, *Condylomata*, and *Crista's*. If the Humour be of a saline nature, it dries and parches the Skin, and chaps it; from whence comes *Rhagades* and *Fissura*, things frequent in the Nose and Lips as well as here.

This Humour is most frequently lodged within the verge of the *Anus*, and so appears to the eye: but it likewise very often is lodged on the Muscles near it, where the *Varices* are hidden, and seldom discover themselves, but only an outward Tumour appears, which in progress often times apostemates, and at last ends in a fistulous Ulcer; which Ulcer, according to the duct of the Vessels that feed it, sometimes penetrates the Gut, and sometimes not.

I shall first treat of the *Varices* themselves, and the Tumours that are consequent to them; and then shall beg leave of my Reader to translate hither a Discourse concerning the Ulcers of these Parts: which I should have placed elsewhere.

The *Varices hæmorrhoïdales* themselves will admit of these following *Differences*; which are either essential, or accidental.

I. Essential are those that are taken from the Parts themselves that are tumefied: *viz.* either the Vein only swells, or some adjacent Bodies swell with it, or some new Body is generated that adheres to it. Differences.

1. When the Vein only swells, then either it swells without bleeding, which we call *Hæmorrhoïdes cæcas* or blind Hæmorrhoids; or, 2. upon swelling it opens and bleeds, which we call *Hæmorrhoïdes apertas*.

2. When other Parts swell with the Vein, other Tumours arise, as Phlegmons, *Scirrhi*, Cancers, *&c.* all which are seated in the Muscles of the *Anus*, or of the adjacent Parts.

3. When new Bodies are generated, they, according to their figure and substance, are called by several names, as *Ficus*, *Condylomata*, Warts, *&c.* which are all of them Excretions upon the Veins so swelled.

II. Accidental Differences are many: *viz.* 1. From the place; so they are internal, or external. 2. From the bigness; great, or small. 3. Number; one, or more. 4. Figure; round, as the *Hæmorrhoïdes cæcæ*, or long, as the *Ficus*, and Warts, or triangular, as the *Crista*. 5. Superficies; equal, or unequal. 6. The *basis*; broad, or narrow, *&c.* 7. The Times; periodical, or uncertain. Many other may be reckoned, as mens fancy leads them.

The Internal *Causes* of *Hæmorrhoids* must be either a meer *Plethora*, or a *Cacochymia*. A mere *Plethora* is a rare case, and if ever it happens, sooner affects other Parts than this. But a *Cacochymia* doth produce them sometimes when it is plethorick, and then is commonly periodical and breaks: or else when 'tis without a *Plethora*, the sharpness of the Humour, or weakness of the Part, or both, do concur to the production. So according to the variety of the degeneration of the Humour variety of Tumours do arise: concerning which we have severally treated already in their particular Chapters. Causes.

But

But they are not Internal Cauſes only to which theſe Tumours owe their Original, they have often External Cauſes; as biting of Leeches, pain any way cauſed by Blow, Bruiſe, Friction, or Puncture. So a man living near *Piccadilly* in eating of Plaice ſwallowed a Bone, which in paſſing ſtuck in the *Inteſtinum rectum*, and ſtirred up pain. He adviſed with ſome, who applied Leeches, whereby the Fluxion was increaſed, and made an Abſceſs, which terminated in a ſinuous Ulcer. The Patient pulled out the Bone, and I was called in to the ſight of the Ulcer by the Chirurgeon, who was of my name and relation. So likewiſe there are many inſtances that demonſtrate the Piles to ariſe from Chirurgical Operations and Applications. Likewiſe ſharp Humours paſſing near that place from the Guts do by their acrimony provoke the Piles. This Humour may be from internal Cauſes in the Bloud, and yet effects externally, *viz.* whilſt paſſing out at the *Anus*, it makes the ſame affections there that a ſharp Clyſter would: or it may be excited by Aſoetical, Scammoniate, or other acrimonious Medicines.

Signs. After all this Diſcourſe it will be needleſs to ſay much of the *Signs*. Your eye will tell you whether it be a Vein or ſome other Tumour that you ſee; alſo whether the Part bleed or not. In other Tumours the Figure will tell you which is the *Ficus*, *Morus*, *Criſta*, *Condyloma*: the laſt of which is like a round penſile Wart with a narrow neck; if it be flat, it is *Ficus*; if it have a broad *baſis*, it is *Criſta*; and ſo forward; their names being given from their reſemblances. *Cancer*, *Phlegmon*, *Scirrhus*, have their Signs taught in their proper Chapters.

Prognoſtick. If the *Hæmorrhoids* flow ſeaſonably and moderately, they purge the Body of feculent groſs Bloud, and thereby free it of many dangerous Diſeaſes, as Pleuriſie, Inflammation of the Lungs and Kidneys, Quartane Fevers, *&c.* and reſtore health.

If they flow immoderately, the Patient groweth weak and faint, is ſubject to *Cachexia*, Dropſies, *&c.* So alſo by the inordinate ſuppreſſion of them the Patient is rendred ſubject to all the forementioned Diſeaſes.

From all which it may be concluded, that there is not leſs danger in unſeaſonable ſuppreſſion of the *Hæmorrhoids*, than there is from their too great Evacuation; and that they are not unadviſedly to be provoked, nor yet too ſuddenly to be checked.

If the *Hæmorrhoids* called *cæcæ*, or blind Piles, be extream painful, and not timely ſuccoured, there is danger leſt, through the great concourſe of Humours, Inflammation, Apoſtemation, *&c.* do follow.

Thoſe *Hæmorrhoids* which affect that part next the Neck of the bladder are more vexatious, by reaſon of the conſent they have with it; whence Inflammation and Strangury may happen.

Thoſe *Hæmorrhoids* called *verrucales* are the worſt ſort; the *uvales* are the milder, and the *morales* have a mediocrity between both.

Cure of the *Hæmorrhoids*; and firſt of the *cæcæ*, or blind Piles. In the *Cure* of the *Hæmorrhoids* we ſhall begin with the *cæcæ*, as well the external as internal: in both which the Patient's Diet ought to be ſuch as hath virtue to keep the Body ſoluble; becauſe in theſe Diſeaſes they are generally coſtive, and by ſtraining to eaſe nature do only excrete a *Mucus*; and if by ſuch excretions they do avoid Excrements, it is with much pain. Therefore Pannado's, Barly-grewels, Oat-meal-caudle's and Broths of Veal, Chicken, *&c.* with Beets, Spinage, Borage, Bugloſs, Endive, Succory, *&c.* are proper. Their Drink may be a ſmall Ale, Beer, or Wine diluted with Water, or Ptiſans. Strong Drinks and Salt or ſharp Meats are hurtful. The Body may alſo be kept ſoluble by Clyſters of fat Broths, emollient Decoctions, or of new Milk. They may be caſt up with Syringes which have a ſhort thick Pipe Taper-faſhion.

ſhion. Lenient Purgatives are alſo of uſe, *viz. Elect. diacathol. lenitiv. diaprun.* &c.

If there be *Plethora*, or the *Hæmorrhoids* be inflamed, Bleeding in the Arm is neceſſary, and in the Leg if you repeat it. If the Patient hath been accuſtomed to a Flux of the *Hæmorrhoids*, and they are ſuppreſt, then Leeches may be applied, that the Bloud may have its diſcharge that way: but unleſs in the caſes aforeſaid Leeches ought not to be uſed, and then alſo cautiouſly, they rather drawing the Humours to the Part, than carrying them off, and ſo are frequently the cauſe of Piles and all the miſchief that attends them. Therefore we take off the *Plethora*, and make revulſion by Bleeding in the Arm, before we apply them. Caution.

The external Medicaments proper in the Cure of this Diſeaſe are of divers kinds, and ought to be proportioned according as they are internal or external, recent or of long continuance, or according to the pain and cauſe whereof they ariſe.

We ſhall begin with the external ones, which, whether they be one or more, do alway thruſt forth with great pain, and are ſubject to Inflammation. In which caſe, if you propoſe to reſtrain the Flux, and dry them up, ℞ *fol. plantag. polygon. ſummit. rubi, equiſeti, an.* M. ß. *flor. verbaſci*, M. ij. *ſem. lini*, ʒij. *flor. roſ. rub. cort. granat. balauſt. baccar. myrtill. an.* ʒvj. *coq. in ſufficienti quantitate aquæ font. & vini rubri, fiat Fotus.* After you have fomented them, apply a mixture of *unguent. popul. cum ſubere uſt.* Upon a Pledgit of ſoft Tow morning and evening.

If the Diſeaſe be in its ſtate, and the pain exceeding great, ℞ *fol. malv. verbaſci, an.* M. j. *flor. hyperic.* M. ß. *rad. cynogloſ.* ʒij. *ſem. lini, fœnug. an.* ʒvj. *ſem. althææ*, ʒß. *coquantur in brodio pro fotu.* Or this; ℞ *farinæ hord.* ʒij. *ſucci intybi, lactucæ, an.* ʒiij. *ſem. pſyllii*, ʒß. *ol. nymph.* ʒij. *vitell. ovor.* num. ij. *croci* ∋ij. In extremity of pain, ℞ *olei vitellor.* ʒj. *opii* gr. vij. *Miſc.*

In the Cure of the internal Piles the ſame emollient Decoctions and Anodynes which have been propoſed in the external ones may be injected with a Syringe to good purpoſe.

If the pain proceed from a groſs viſcid Matter diſtending them, ſuch Medicaments ought to be applied as are moderately heating, and reſolving: *viz. radic. chelidonima, rad. gladioli, cæpæ, allium, ſquillæ*, &c. Alſo *Balſam. ſulph. Rulandii.*

In the Declination of this Diſeaſe you may treat them with Medicaments that are powerfully drying: for the Parts diſtempered are lax, and, having been much diſtended with that Humour, cannot eaſily recover their former tone. Therefore we uſe *bolus Armen. calx lota, crocus Martis aſtring. ſquam. ferri, ærugo*, &c. alone, or mixed with *mel commune, axung. porcin.* &c. *aqua calcis, aluminoſa, ſulphurat. lap. medicamentoſ.* &c. When they do not yield to ſuch applications but are pendent as *uvæ*, &c. they will be apt to ſwell upon every little diſturbance, therefore in ſuch caſes I frequently cut them off.

The *Apertæ* or bleeding *Hæmorrhoids* ought not to be ſtopped while they diſcharge a groſs vitious Bloud, or while the Patient beareth the evacuation well, and laboureth of ſome Diſeaſe, whereof he may hope to be freed by the bleeding of them. In theſe caſes the *Hæmorrhoids* ought to be permitted to flow freely forth. If they do not, you are to endeavour to make them bleed with ſuch Medicaments as have a quality thereto. The internals are all thoſe which have Aloes, Scammony, *Colocynthis*, &c. Doctor *Read* in his Chirurgical Lectures commends *pil. Ruffi*; and a Phyſician in the Country once told me, he had experimented them with good ſucceſs, and freed himſelf of a *Hæmoptoe* and *Phthiſis* he was falling into. Cure of the *Hæmorrhoides apertæ*, or bleeding Piles.

The

The Ancients have offered unto us divers Medicaments to the ſame purpoſe: *viz.* the rubbing of the *Podex* with Fig-leaves; alſo the Roots of wild Cucumber, Sow-bread, *&c.* made in the form of a Suppoſitory, and put up. Or, ℞ *fellis bovini* ℥j. *aloes* ℥ij. *aceti acer.* ʒij. *Miſce, & injiciatur.* Or, ℞ *pulv. colocynth.* ℥iij. *amygd. amar.* ℥j. *mellis deſpumati* ʒij. *Miſce, fiat Suppoſitorium.* Or, Take two ſmall Onions, Garlick four heads, flower of Lupins two ounces, Wine-vinegar as much as will make them into a Paſte in the form of Suppoſitories. It would be of great uſe in the preventing as well as curing of many Diſeaſes, if ſuch evacuations could be made when we would: but ſo far as I could yet ever ſee, outward Medicaments have rather diſturb'd the Parts, than moved them to bleed to any purpoſe: yet I ſuppoſe they may provoke them in ſuch Bodies as have been heretofore ſubject to them, and ſo may be of good uſe.

In others who are extraordinarily ſubject to the bleeding of the *Hæmorrhoids*, your care will be required in the moderating of them by regulation of Diet and manner of living: in which caſes I refer you to the Chapter of the *Wounds of Veins and Arteries.* If the Flux of bloud be great, you may make Revulſion by Venæſection, Cupping, and binding the remote Parts, alſo by the application of aſtringent Medicaments; or by ſuch internals as may incraſſate and contemperate the Ferment in the Bloud. Such are *ſyrup. cydonior. portulac. de ſucco citr. acetoſ. plantag. de roſis ſiccis, de rib. myrtillor.* mixed with ſome of the diſtilled Waters or Decoctions, *ex radic. conſolidæ:* So alſo *pulv. biſtortæ, tormentillæ, fruct. meſpilor. malicor. acatiæ, cornu cerv. uſti, bol. Armen. lap. hæmatit. ſang. dracon. Troch. de terra Lemnia, de ſpodio, de carab.* &c. may be mixed with Syrups: *viz.* ℞ *boli veri* ℈j. *lap. hæmatit.* ʒß. *poſcæ* ℥iij. *ſyr. myrtillor.* ℥j. *Miſc.* Or, ℞ *croc. Martis aſtringent.* ℈j. *conſ. roſ.* ℈j. *Miſc.* Opiats are alſo uſeful in great Fluxes of Bloud, *viz. theriaca Veneta, diaſcord. laudanum*, &c.

The external Applications are *cort. granat. balauſt. thus, maſtich. nuc. cupreſſ. gallæ, hyporiſtis*, &c. made into Suppoſitories with *gum. tragacanth.* Iſing-glaſs, or *cum album. ovor.* Hares-furre with which Pledgits of Tow may be ſpred and applied externally. The Royal Stiptick caſt with a Syringe is alſo proper in theſe caſes.

1. Obſervat. of the *cæcæ* or blind *Hæmorrhoids.*

A Man of about forty years of age, of a lean and dry Habit of body, was ſubject to the *Hæmorrhoids* called *cæcæ* affecting the verge of the *Anus.* I let him bloud about ſeven ounces in the Arm, and, in conſideration of his coſtiveneſs, adviſed a Clyſter of Milk and Sugar. The ſame night I fomented the Piles with the Decoction of *plantag. polygon.* &c. and applied a Pledgit of Tow ſpred with *unguent. populeon*, as is preſcribed in the method of Cure: by the application whereof he was eaſed, and in few days cured.

2. Obſervat.

Another aged fifty years of a full Body, diſeaſed with the ſame kind of Piles, with great pain. They lay varicous in a great cluſter, ſo as it was not eaſie to find the way into the *Anus:* but in preſſing ſome of them on one ſide, I ſaw a looſe red Fleſh thruſting from within outwards. It was the inner Spongy Coat of the *Rectum inteſtinum* relaxed by the Fluxion, and hence a ſerous Humour diſcharged with ſome *Mucus.* I let him bloud in the Arm about twelve ounces at that inſtant, and ſtuped the inflamed Piles with cloaths wrung out of Claret-wine. An hour or two after a Clyſter was exhibited of Milk with the Yolk of an Egge, ſome Sugar, and two ounces of *ol. hyperic.* which brought away hard Excrements, and mitigated the bearing down which he had complained ſo much of. The ſame night I viſited him again, and fomented with a Decoction of *malv. verbaſ. ſem. lini*, &c. as it is deſcribed, and applied a Cataplaſm

Cataplasm of the *fæces* beaten and pulped. I advised him to a slender Diet, and prescribed him a Barly-cream *cum sem. melon. papaver. alb.* a few Almonds, a little juice of Lemons, *aq. ros. & cinnam. hordeat.* He rested tolerably well that night, and was easier in the morning. I continued the same method of dressing till the pain was asswaged, repeating Clysters as occasion offer'd; and afterwards fomented them with a Decoction of *summit. anethi, hyperici, salviæ, ros. rub. nuc. cupress.* in Wine, by which I discussed and dried up the humidity, and thereby cured him.

3. Observat. of external *Hæmorrhoids.*

A Man of about forty six years of age, abounding with sharp Humours, frequently diseased with the *Hæmorrhoids*, being one time sorely afflicted with them, consulted me. I saw them lying in a great Cluster round the verge of the *Anus*, which was also relaxed and turned out. The *Varices* were of different sizes and colours: some were inflamed red, others pale, others livid, and some black. At first sight I supposed them Gangrened: but after a farther search I observed the different colour of them proceeded from the great Influx of Humours which dilated them, and caused the Compression they made upon one another. We commonly see the same in making a Ligature on any of the *Varices*; in which case generally they inflame, or if tied very straight, grow pale and become livid; then, as the heat extinguisheth they grow black: Yet sometime, upon tying, the Bloud bursts forth, and they recover their native heat. Thus in our case, through want of timely relief, they inflamed and swelled, and straightned themselves; till by corrupting they wither'd, and made room for their fellows. Whether these would have gangren'd if not then succoured, I shall not conclude; but in bodies ill-habited they do so sometimes. These were exceeding painful, and, by reason of the Relaxation of the *Anus*, caused a vexatious *Tenesmus*, and discharged much Gleet and *Mucus*. I fomented them at the instant with red Wine, and injected up a spoonful or more of *ol. hyperici*, to abate the acrimony causing the *Tenesmus*; then let the Patient bloud. The next morning I fomented the diseased Parts with the foresaid discutient and drying Decoction, and applied that old Remedy of fryed Leeks with Butter, beaten to a Cataplasm: by which the pain was mitigated, and the varicous Swellings relaxed. The Ulcerations were afterwards dried up by the sprinkling them with *pulv. nuc. cupress. & balaust.* and the continued use of the foresaid discutient Fomentation; in which, towards the declination of the Disease, was dissolved *extract. sumach*, whereby the humidity was dried up, and the *Anus* reduced; during which his Body was kept soluble by Clysters, and Lenient *Bolus's* of *cassiæ extract.* &c.

4. Observat. of external *Hæmorrhoids.*

A Woman of about forty years of age came to *London* upon some affairs, and, having been formerly subject to the *Hæmorrhoids*, was here again afflicted with them. She being a Stranger, and shy in discovering her Malady, it increased with much pain, which afterwards put her upon a necessity of complaining. I was consulted, and saw them thrust out in a great cluster with Inflammation to putrefaction, the *Anus* turned out with great Tumour. She was also diseased with a *Tenesmus*, which put her bowels upon a continual excretion of much Gleet and *Mucus*. I fomented them with Wine, cut off some of the *varices*, scarified others, and permitted them to bleed; then washed them with a Solution of *unguent. Ægyptiac.* in some of the Wine, and injected some *ol. lini.* Afterwards I applied a Cataplasm of fried Leeks over all. Cordials were prescribed her, and an Anodyne draught that night, to dispose her to rest. A discutient and resolvent Fomentation and Cataplasm were also applied by her Nurse keeper, as occasion offer'd. By these Applications the pain mitigated, and the Tumour relaxed. The Ulceration being great required Medicaments drying and detersive; to which purpose I left off those slabby

ones, and fomented with *aqua lapidis Medicamentoſ.* applying *balſ. ſulphuris Rulandii* upon Pledgits of Tow, with warm Stupes over it. By the uſe of theſe the Ulcerations were healed, and the over-moiſtned Parts dried, alſo the *Anus* contracted. During her Cure Lenients were injected, to mitigate the heat and diſturbance in the *Inteſtinum rectum*, and her body was kept ſoluble by Clyſters. Alſo to prevent future Coſtiveneſs, I preſcribed her a Lenitive Electuary of *extract. caſſiæ, pulp. tamarind. maciæ, pulv. jalap. ſalis tartari*, to take the quantity of a dram more or leſs at night going to bed. I purpoſed the making her a Fontanel, but ſhe being well went out of Town.

5. Obſervat. of external Piles.

A Gentleman aged about forty years, of a healthful Conſtitution, was often vexed with *Hæmorrh. uval.* on one ſide of the *Podex*, one whereof, being over-ſtretched, was uncapable of being ſo diſcuſſed, but that it ſwelled and inflamed upon every little diſorder or Coſtiveneſs. He at laſt, wearied with the diſturbance, conſulted me: it was then ſwelled, and ſomewhat inflamed. I, obſerving its *baſis* capable of tying, made a Ligature upon it, and cut it off; then permitting it to bleed ſome while, I dreſſed it *cum pulv. Galeni*, with a Pledgit of *unguent. baſilicon*, and a Plaiſter of *unguentum nutritum* over it, and cured it by the touch of a Vitriol-ſtone and *unguent. deſiccat. rub.* Since when he hath enjoyed good health, and been leſs troubled with the Piles.

What more concerneth the Cure of theſe kind of *Hæmorrhoids*, we ſhall be obliged to take notice of in the following Obſervations of the *Hæmorrhoïdes apertæ*, they being for the moſt part accompanied with them, and are alſo attended with *Teneſmus & Procidentia Ani.*

1. Obſervat. of the *apertæ*, or bleeding *Hæmorrhoids.*

A man aged about fifty years, of a groſs Body, ſubject to a bleeding of the *Hæmorrhoids*, preſuming upon that benefit of nature, heated his Bloud by diſorder ſo, that it flowed violently forth by Stool, and in few days it brought him to be very faint and weak. I injected two or three ſpoonful of *ſucc. urticar.* and applied a Pledgit of Tow on the *Podex* dipt in a Solution of *extract. ſumach* in red Wine; then preſcribed him an Emulſion, *ex ſem. hyoſcyam. & papaver. alb.* By this method the Bleeding was ſtopt, but thereupon he grew feveriſh, and the *Hæmorrhoids* ſwelled externally. To them I applied *unguent. populeon cum ſubere uſt.* and took away a few ounces of Bloud from his Arm: by which and contemperating Juleps, *&c.* his heat remitted, and he recovered.

2. Obſervat.

A Woman of about forty years of age, having been long afflicted with the *Hæmorrhoids* of both kinds, whereby ſhe was much emaciated and grown cachectick, in extremity of a Fit of both kinds joyned together ſent for me. I cauſed this Leniment to be injected, and applied upon a Pledgit of Tow: ℞ *mucilag. ſem. pſyllii extract. in decoct. malvar.* ℥iv. *myrrhæ, thuris, croci pulveriz. an.* ʒß. *vitell. unius ovi, ol. roſ.* ʒß. *opii* gr. viij. This gave the Patient preſent eaſe; but the next day ſhe was ſeized with a pain in her Head, and her *Uvula* and right Tonſil grew inflamed. I ſuppoſed it was a tranſlation of that Matter which had been checked by the Anodyne; yet could ſcarce believe that a Body ſo emaciated, and ſo lately emptied by the bleeding of them, could be ſubject to ſuch an Accident. I let her bloud in the Arm four ounces, and by the application of Diſcutients externally to the *Fauces*, and a Gargariſm of a few diſtilled Waters with *ſal prunellæ & ſyr. diamoron*, the Inflammation remitted, and ſhe recovered.

3. Obſervat.

A man aged about forty years, extreamly ſubject to the *Hæmorrhoids* many years, came to Town, and being ſorely diſeaſed with them, he conſulted me. I ſaw him newly come off the Cloſe-ſtool, ſitting upon the corner of a Trunk,

Trunk, with a Pillow and Napkin under him, his breeches hanging about his Legs: his Visage was pale and dejected, a cold sweat dropping from his Brows. He had been twice upon the Close-stool straining with great uneasiness, avoiding only a *Mucus* with a bloudy *serum*. He then went again to it, and after some while straining returned discontented to his bed, where (he said) he was wont after an hour or two to be easier. I viewed the diseased Part, and saw the *Podex* relaxed so much as I believe I might have put up my four fingers. It was varicous round the verge, and had bled some two or three ounces. From the internal Piles he frequently bled very much, yet was not the less pained. I called for soft Napkins well warmed, and applied one after another hot, whereby I soon quieted and reduced the relaxed *Anus*. I commended to his use an Infusion of Astringents in red Wine, to be applied hot with Scarlet-cloaths immediately upon his coming from the Close-stool, and to wear a Pledgit of Tow sprinkled with *pulv. nuc. cupress. balaust.* &c. by the use of which he was frequently much eased. Some years after he died suddenly of an Apoplexy, as was supposed.

Chap. II.

Of Procidentia Ani.

HAving in the preceding Discourse made often mention of a Relaxation of the *Anus*, we shall now treat more particularly of it. It is called by the Latines *Procidentia Ani*, also *Prolapsus* and *Exitus Ani*. By those names it is also known amongst us. It is a Relaxation of the Sphincter to such a degree, that the internal rugous Coat of the Intestine turneth out, and beareth down, making a Swelling proportionably. Names. Description.

The *Causes* of this Disease are Costiveness, at which time, straining to ease nature it frequently falls down; also Fluxes of the Bowels in *Diarrhœa*, *Dysenteria*, and especially *Tenesmus*. The Piles are for the most part a Cause, so is hard Labour in Child-bed, and the Stone in the Bladder. In Infants it commonly falleth down through Crudity or over-moisture of the *Levatores Ani*. In those of Age the Cause will be more certainly discovered by the complaint of the Patient. Causes.

The *Signs* are evident to the sight: the inside is turned outward, and the Tumour is of a fleshy colour and rugous, by reason of the folds and wrinkles of the Coat; and it is accompanied with an uneasiness, and desire to go to Stool. Signs.

The Cure of this Disease is difficult, but much worse in old people than young; and if it succeeded a *Dysentery* or *Hæmorrhoids*, it is the most difficult. In the latter case it is scarce ever curable. If it happened through Costiveness, the Cure is hopeful; so it is if it was caused from the Stone in the Bladder, or Child-bed Labour, if in that work the Muscles or Membranes were not torn. Prognostick.

In order to the *Cure*, the prolapsed Intestine ought to be put up with an easie hand. The usual method is, to apply a Stupe of Flannel or Scarlet-cloath, wrung out of some Decoction of red Wine hot; and after the Part hath been a Cure.

while fomented, you are to thruſt up the relaxed *Anus* with your fingers till you have reduced it. If the Tumour be great and hard, you ought then to foment it with Emollients and Diſcutients, *viz. fol.mal.viol. tapſ.barbat.flor. ſambuci, cham. meliloti, ſem. lini, fænugræci*, &c. The Tumefaction removed, reduce it as aboveſaid, binding on a Button of ſoft Tow preſt out of an Aſtringent Decoction made thus; ℞ *baccar. myrtillor. flor. roſ.rubr. balauſt. an.* ʒß. *nuc. cupreſſ. gland. querc. an.* ʒj. *ſumach. acatiæ, hyporiſt. an.* ʒijß. *corn. cervi uſti, thuris, an.* ʒij. *infundantur in vin. rubr.* ℔ij. *& coquantur ad tertiæ partis conſumptionem.* Your next endeavours ſhould be how to prevent the deſcent of it in the time of eaſing nature; for upon the leaſt ſtraining it for the moſt part thruſts down again. Therefore it is that we deſire the Patient ſhould be ſo well diſpoſed in his Bowels, that, if it be poſſible, he may go ſeldom to Stool, and when he doth, that it may be with the leaſt ſtraining. He ſhould alſo have a couple of Sticks whitled and fitted for him to place cloſe on each ſide the *Podex*, ſo as in ſtraining the Excrements may paſs out, yet the Prolapſe of the Inteſtine be hindred. For the like purpoſe I have frequently commended a ſmall Tin-hoop to be faſtned in a quilted Boulſter, which being fitted with Bandage may be retained at that time to paſs the Excrements through, and prevent the Relapſe. What you can invent to this purpoſe will much facilitate the Cure.

1. Obſervat. of *Procidentia Ani.* An Infant about a month old was diſeaſed with a *Procidentia Ani*, which being not reduceable by the Women, I fomented it with red Wine three or four times, then with my fingers upon the Stupe preſſed equally upon it, and reduced it. I continued the fomenting it a while longer, then applied a Pledgit of dry Tow upon the *Anus*, directing them how to relieve it in caſe of its Relapſe. I afterwards ſent them papers of Aſtringents to infuſe in red Wine, to apply as above ſaid. By which method it was ſtrengthened and cured in few days by the care of the Nurſe.

2. Obſervat. of *Procidentia Ani.* A ſickly Child about four years old had been ſome months diſeaſed with a *Procidentia Ani*, by reaſon of a preceding Flux of the Bowels with *Teneſmus*. It had been neglected by the Servant that attended it, and was too much ſwelled to yield to a Reduction. I fomented it with the diſcutient and emollient Decoction preſcribed in the method of Cure, then bound on warm Stupes wrung out of the ſame, and kept him in bed. The Swelling being thereby ſomewhat relaxed, I endeavoured again Reduction; but it not yielding thereto, I fomented it with Diſcutients with ſomewhat of Aſtringency, and ſprinkled the inner Tunicle with *pulv. nuc. cupreſſ. corn. cervi uſti, an. part. æqual.* then applied warm Stupes thereon. After I had thus dried up the ſuperfluous Humidity, I attempted it again: but as I preſſed upon it on one ſide, it roſe on the other. I repeated the warm Stupes, and with my fingers upon the Stupe I preſſed cloſe upon it, and twidled it in firſt one ſide, then the other. It being reduced, a Compreſs of Tow made in the form of a great Button, dipt in an aſtringent Decoction, was placed thereon, and retained by good Bandage. His Diet was boiled Rice and ſuch like, which might prevent a Looſeneſs. At his next going to Stool I was fetched. After he had eaſed nature, I fomented the relaxed *Anus*, and having cleanſed and dried it, reduced it eaſily, then dreſſed it as before, and continued my attendance at ſuch times; whereby I facilitated the work and cured the Child, by the aſſiſtance of the Servant that attended it. Many ſuch-like in Children to twelve years of age I have happily recovered by the like method.

3. Obſervat. of *Procidentia Ani.* A Man of about twenty eight years of age, afflicted with a *Procidentia Ani*, conſulted me. It was neither inflamed nor hard; but, having been long out, was not eaſie to reduce. I returned that evening with a Decoction of *ſummitat. anethi*,

anethi, hyperici, flor. cham. ros. rub. balaust. sumach, nuc. cupress. made in Wine; and after I had fomented the relaxed Parts, I endeavoured again to reduce it; but it not yielding, I sprinkled the inner Coat of the relaxed *Anus* with *pulv. nuc. cupress.* and applied a warm Stupe over it with retentive Bandage. The next morning I returned thither, and repeated the Fomentation, and having thereby reduced it, I dressed it up with a Compress of Tow made in the form of a Button dipt in a Solution of *extract. sumach* in red Wine, with Bandage to retain it close. I afterwards made him several visits, and assisted him in the reducing it, directing him according to the way proposed in the method of Cure for preventing the Relapse: by which method the Relapse was lessened, and the easier reduced when it slipt out.

4. Observat. of *Procidentia Ani.*

I was fetched to a Woman of about forty years of age, who had been long afflicted with the *Hæmorroids* both internal and external, through the continuance of which the Sphincter relaxed, and, for want of timely reduction, in process of time swelled big, and was accompanied with great Fluxion, Ulceration, and various sorts of Excrescences, which rendred it uncapable of being reduced. I advised a discutient and astringent *Fotus*, as hath been proposed in the method of Cure; and the next day cut off the Excrescences with a pair of Scissors, and applied warm Stupes, to continue the bleeding till I thought I had sufficiently given a breathing to the Part. Then sprinkling them with a mixture of *pulv. cort. granat. nuc. cupress.* with a third part of *Merc. præcipitat.* I applied a warm Stupe over all, with retentive Bandage. The next day I repeated the same Applications, with this Emplaster under the Stupe: ℞ *pulv. summitat. millefolii, flor. chamæmel. an.* ℥vj. *cortic. granat.* ℥ij. *ciner. ligni fraxini* ℥ij. *aluminis usti* ℥ij. *rad. squill. coct. sub cineribus* ℥iv. *pistentur in mortario cum axung. porcin. & mel. communis an. q. s. fiat Emplastrum.* By the continued application of these Medicaments, I discussed part of the Swelling, and dried up the Ulcerations, and by rubbing of many roots of the Excrescences with the Vitriol-stone consumed them. But the circumference of the *Podex* after all being too turgid to turn inward, I fomented it with Emollients, and applied Cataplasms of the same; by which it was after a while rendred reduceable, and by Compression retained: but by reason of the laxity and over-moisture of the Part, she was subject to the *Hæmorrhoids* afterwards, and the *Anus* frequently relapsed. She languished long under that Disease, and died hydropical.

5. Observat. of *Procidentia Ani.*

A person aged about sixty years, having laboured a long time under various Chronick Diseases, and of late years a supposed *Fistula in Ano*, which grew daily more vexatious; I was consulted. Upon view of the Part, I judged it a *Procidentia Ani.* It being questioned, I called for warm Napkins, and applying them hot one after another, I reduced it whilst I pressed one of the warm Cloaths close to it, and thereby eased the Patient, and confirmed the Judgment I had delivered of it. This *Procidentia Ani*, by reason of its long continuance, and the continual discharge of serous Humours by it, rendred the Part so lax, that it relapsed upon the least walking. Wherefore I provided accordingly a Compress dipt in astringent Liquors, with Bandage to retain it close, and some days attended him in reducing it, and in shewing his Servants how to reduce and dress it. The work of Reduction being grown more easie to his Servants, the Patient contented himself with having it reduced so often as occasion offered, and declined the trouble (as he called it) of Bandage. During the time of my attendance on this Patient, I observed the folded Sheet which lay all night under him to be wet through, as if so much water had steped into it. Upon enquiry whence it proceeded, and feeling his Belly, I concluded the Patient hydropical, and that the discharge *per Anum* was from thence

thence. I was not much credited; but it appeared so about three quarters of a year after, when he dying of an Apoplexy, his Servants taking him out of Bed, the Sheet under him was found wet as aforesaid. In order to the Embalming of him, I pierced his Belly, and discharged twenty two pints and a half of Water. Towards the latter part of his life he was subject to Vomiting, with dejection of Appetite: the *Procidentia Ani* was also continually attended with a *Tenesmus*, which was no small disturbance to his Bowels. In the opening of the lower Venter, I found the *Viscera* much obstructed; and in the left Kidney there was one stone filled up the same.

Chap. III.

Of Condyloma, Ficus, Thymi, *&c.*

THe *Anus* is also subject to various sorts of Excrescences besides those arising from the *Hæmorrhoids*, and have names from the things they most resemble, being called *Condylomata*, *Ficus*, *Cristæ*, *Thymi*, &c. Authors do not agree about the Names of the three former: some making *Crista* and *Ficus* all one, only differing as they are greater or lesser; and take no notice of *Condyloma* at all. Others also have given very different Descriptions of them, such as seem to me insufficient to distinguish them. I shall therefore take the liberty to represent them to you as I have seen them grow.

Description of *Condyloma.* The *Condyloma* and *Ficus* I suppose to be both one, differing only in their manner of growth, they both arising from a peculiar kind of soft round Tubercle distending the internal rugous Tunicle of the *Anus*, without pain or alteration of colour in the Skin; and as that increaseth, it groweth fleshy.

Ficus. If it continueth that figure, it is *Condyloma:* but if it shoot out with a long neck, as frequently it happens, resembling a Fig, it may deservedly be called *Ficus.*

Cristæ. *Cristæ* are a sort of hard Excrescences arising somewhat distant from the verge of the *Anus*, in the form of a Cox's Comb, and are usually a symptom of the Pox.

Thymi. *Thymi* are hard Excrescences not unlike the tops of the Herb they borrow their name from. They partake of the nature of Warts, and differ only in their manner of growth. There are other sort of Excrescences of a softer substance, called *Papulæ*, &c. Of the former some are benign, others are malign and of a Cancerous quality.

Rhagades. *Rhagades* are Chaps or Fissures about the verge of the *Anus* proceeding from the acrimony of the Humour fretting and cracking those Parts. This hapneth in those who have been infected with any of the abovementioned Excrescences: it may also proceed from a *Diarrhœa*, &c. They are deep or shallow, dry or moist, malign or benign, according to the quality of the Humour to which they owe their original.

Difference. The abovementioned Excrescences are enough distinguished by the sight from one annother. They differ from the Piles, as affecting only the Skin, and that without Tumefaction of the *Podex:* nor have they any likeness to a *Varix.*

The

The material *Cauſe* of all theſe ſorts of Excreſcences is pituitous or groſs viſcous Bloud thruſt forth by the ſtrength of the Expulſive faculty out of the Pores of the Skin, and dried up into theſe forms in which we ſee them. The *Condyloma* and *Ficus* ariſe from a viſcous Humour flowing preternaturally into ſome part of the rugous Coat of the *Anus*, raiſing it into a ſmall Tumour, as I have already ſaid. The *Criſtæ* and other Species of Excreſcences are reputed to ariſe from the *Lues Venerea*, and from that filthy ſin of *Sodomy*, and have the *Rhagades* for their companions: which I believe is frequently ſo ſeen in the hot Countries; but amongſt us is a Symptom of the Pox. Yet I have met with it in a little Infant; and all the other Species in people whom I ſuppoſe never had the *Lues Venerea*. Cauſes.

The *Thymi* are the worſt ſort of Excreſcences, they being more often malign, and are then painful; alſo if their extirpation be unſucceſsfully attempted, they grow cancerous. The *Condyloma*, *Ficus*, *Criſtæ*, &c. are not difficult to extirpate or cure, if the Diſeaſe be rightly conſidered from which they ariſe. Prognoſtick.

The *Cure* of theſe Excreſcences at their firſt budding forth may be attempted by Medicaments that are aſtringent and drying; as *ſummit. rubi, equiſeti, fol. & baccar. myrtillor. ſumach, cort. granat. balauſt. ſquamæ æris, ferrugo, calx lota, alumen*, &c. made into Fomentations, or poudered and mixt with Oyntments, and applied upon Tow. If theſe do not check their growth, you may cut them off with a Knife or Sciſſors, and conſume the remaining roots by eſcarotick or actual Cautery, and then proceed in the Cure by Digeſtion and Epuloticks accordingly. To prevent their growing again, Authors commend the Aſhes of Vine and Bean-ſtalks mixed with Vinegar, to apply upon the Part. Cure.

The Cure of *Rhagades* conſiſts in removing the Calloſity, and cicatrizing them ſmooth, as aboveſaid. If Humidity abound, it requireth Exſiccants: to which purpoſe, ℞ *flor. roſ. rub. bacc. myrtill. ſummit. rub. an.* M. j. *rad. tormentill. biſtortæ, an.* ℥j. *aluminis* ℨj. *coquantur in aq. chalybeat. ad* ℔jß. *in fine decoctionis adde vini rub.* ℥iv. with which foment the part. Then apply ſuch like: ℞ *lithargyri, ceruſſæ, an.* ℨiij. *ſarcocollæ, maſtich. thuris, an.* ℈j. *terræ ſigillatæ,* ℈ij. *ol. roſ.* ℥iv. *ceræ q. ſ. Miſce ſuper ignem, deinde piſtentur in mortario plumbeo pro uſu.* If ſiccity be the fault, you muſt dreſs them with Medicaments that are humecting; as, ℞ *pingued. vitulin. anatis, gallinæ, an.* ℨij. *lithargyr. aur.* ℨj. *Miſce in mortario plumbeo S. A.*

ALl the Species of Excreſcences are for the moſt part ſymptoms, as I have ſaid, of the *Lues Venerea*, to which Treatiſe I ſhall refer you for a more particular information, and ſhall here, for brevity ſake, give you only one Obſervation of a perſon who ſuffered under various Species of them the moſt I ever ſaw, yet was not venereal. He was a man of about fifty ſix years of age of a healthy Conſtitution; he complained that he had been long obſtructed in eaſing of nature by reaſon (as he thought) of the Piles, which of late was much more grievous to him, they in a manner ſtopping up the *Anus*. I viewed the Part, and ſaw a numerous company of Excreſcences, great and ſmall, overſpreading the *Anus*, inſomuch that it was very difficult to find their inſertion. There were five very large, of the form of green Figs, the leaſt of them about an inch & a half long, inſerted within the *Anus*. There were other leſſer growing more externally, upon the verge of them ſome hung like ſo many Leeches. There were alſo about the *Anus* many *Thymi* growing right up of different ſize; under which were *Rhagades*, Chaps and Fiſſures, with ſmall Excreſcences or *Papulæ* thruſting here and there out of them. Theſe being all waſhed and cleanſed from the Excrements, retained the natural colour of the Skin, and were not painful. He had concealed his Diſeaſe ſo long as he 1. Obſervat. of *Rhagades, Ficus, Thymi.*

he could, and was encouraged to send for me, upon a report he had heard from a Neighbour of his, whom I had freed from an Excrescence in the same Part. I readily undertook the Extirpation of them, but desired to have some witness of the work: to which purpose one was consulted; but he, discouraging us with a prediction of their malign quality, left us. Yet the Patient urging me to proceed in the operation, and I considering the necessity of it: I came the next day with my Servant, furnished with Knife, Scissors, Needles and strong Thread, actual and potential Cauteries, astringent Powders, *&c.* Then having placed the Patient in a clear light, with his Knees drawn up towards his Body, he with my Servant assisting with their hands, I again considered the Part affected; and finding it difficult to get to the roots of those inserted within the *Anus*, thought to begin with those more remote. But suspecting how his courage might hold out, I began with those neareſt the verge of the *Anus*, clipping them off close from their roots one after another, as fast as I could, not minding their bleeding, till I had freed my way to those within the *Anus*. Then with a Sponge dipt in *Oxycrate* I washed off the Bloud, and with small actual Cauteries dried the roots of them. That done, I oiled my Finger, and passed it into the *Anus*, to make way to the next: and whilst I held my Finger beyond it close to the root, my Servant the mean time pulling the *Ficus* to him, I passed the Scissors under it towards the end of my Finger; then tied them, and passing on cut them off, my Finger within directing me in the work. I tried the *Speculum Ani*: and by the help of my Finger within, and a *Speculum* at the entrance upon the verge, I cleared the *Anus* of them, cauterized their roots, and put up a bit of a Rag dipt in *unguent. refrig. Galeni*. Then I fell to work with the rest, snipping and cutting them off, and consumed their roots with actual Cauteries. Some of those that had very small roots I burnt with the Button-end of my Probe, others with the point of my *Forceps*. The Lips of some of the *Rhagades* which were callous, I burnt with the *Spatula*, some others I rubbed off with the Caustick-stone. Thus in less than an hour and a half I consumed them all, and left the *Anus* free, and the Parts about smooth. I dressed them up with a Pledgit of Tow spred with *unguent. refrig. Galeni*, and in the space of fourteen days or thereabouts cured him: for indeed most of them cicatrized as the Escars cast off. This Patient lived many years after, and publickly acknowledged the Cure to persons of great Quality. If these had risen from the Pox, they would have soon returned, and rendred my operation unsuccessful; which they did not.

2. Observat. A preternatural Body growing from the *Os coccyx* extirpated.

A young married Wife having been long diseased with an Excrescence growing out from the *Os coccyx* between three and four inches in length, not unlike the tail of a *Turkish* Sheep, retaining the natural colour of the Skin, without pain, except in time of Child-bed; She being again with Child, and dreading the pain thereof, consulted me. I undertook the extirpating of it, and in the presence of some eminent Physicians made a Ligature upon the *basis* of it, and cut it off. It scarce bled; yet having astringent Dressings ready prepared, I applied them. We slit the preternatural Body open, and judged it to be a soft white Fat, like that of a Rump of Mutton. At the next Dressing I perceived the remaining part was Fat, and had for its root long slips of the same kind of Fat, running up from the *Coccyx* on each side to the back of the *Os sacrum* about two inches in length. I laid it open, and digested it out with *Merc. præcipitat.* then cured it according to the usual method in such cases, since which time she hath been delivered of two Children without any disturbance from that Part.

CHAP.

Chap. IV.

Of Phyma.

IN the lower part of the *Inteſtinum rectum*, where the *Muſculi Ani* are inſerted, there frequently ariſeth a hot Tumour called *Phyma*. You may find it deſcribed amongſt the Tumours ariſing from Bloud; therefore I ſhall not trouble you here with a farther Deſcription of it; but give you three inſtances of it as it affected the *Anus*, the better to ſhew you the original of *Fiſtulæ in Ano*: they for the moſt part proceeding from theſe Abſceſſes, whether they break within and ulcerate there, or the matter deſcend lower, and raiſe a Tumour without the verge of the *Anus*.

Thoſe within the *Anus* produce the moſt dangerous *Fiſtulæ*. The matter of which penetrating through the coats into the neighbouring Muſcles, is rarely diſcovered till it hath made its way more outward amongſt the Muſcles of the buttock; but if it chance to be diſcovered ſooner, yet the cure is moſt difficult: nay thoſe *Phymata* which appear outwardly upon the verge of the *Anus*, though they are of eaſier cure; yet if they be ill handled, the defluxion is continued, and the *Sinus* within groweth callous, and requireth the ſame method that *Fiſtulæ in Ano* do, it being directly ſuch as you may ſee in the following Chapter. Prognoſtick.

The way to prevent theſe miſchiefs, is by timely laying open the external *Phyma* by Cauſtick, that the Matter may have free diſcharge; for if you open that by Inciſion it muſt be kept ſo with a Tent, which cannot be eaſily retained in: and whether the Matter be choked in by that, or it ſlide out and the Orifice cloſe up, is alike inconvenient and prolongs the cure. The internal *Phymata* are eaſily cured if they be timely diſcovered and opened by inciſion. Cure.

I Shall begin with an inſtance of an external *Phyma*, in a Child of about four years of age, the only Son of his Parents; he had been grievouſly pained in *Ano* four or five days, they not diſcovering his malady: but the Tumour appearing externally, I was fetched; it lay *juxta Anum*, of the bigneſs of a Pheſants egge, perfectly ſuppurated. I applied the milder Cauſtick upon the declining part, with Plaiſter and Bandage. The next morning I heard the Patient had reſted tolerably well. I took off the Dreſſings, and found the Matter diſcharged through the Eſcar, which was, as I had deſigned it, the breadth of a two-pence. I dreſſed it with a Pledgit of Tow ſpread with *unguent. baſilicon cum ol. roſ.* by this method the Matter diſcharged freely without diſturbance in going to Stool, and it cured by the Maids dreſſing, I not viſiting it thrice. Many ſuch I could give you of theſe ſo eaſily cured. 1. Obſervat. of an external *Phyma*.

A Country-man aged about thirty years, of a Sanguine full body, coming to *London*, was taken with a pain in *Ano*, and deſired my advice. I viewed the Part and made a ſearch with my finger dipt in a little oil, but diſcovered nothing whereby I might ſuſpect Ulcer or Piles. I injected a ſpoonful or two of *ol. liliorum* warm, and directed him the uſe of it; but after three or four days the Pain increaſing, I made a ſearch, and felt a Swelling on that Part which lieth next to the neck of the Bladder; I took a crooked inciſion-Knife, and defending the edge of it almoſt to the point, with a bit of Plaiſter conveyed 2. Obſervat. of external *Phyma*.

it in by my Finger to the Swelling, and made Incision into the Tumour; he presently discharged a spoonful or two of Matter. From that time he complained no more of pain. I cast up a little *ol. Hyperici* warm as before, and henceforward dressed him no more, he being perfectly cured.

3. Observat. of a *Phyma.* A Planter which came from *Virginia*, lodging in the *Old-baily*, being extreamly pained in *Ano*, consulted his overthwart Neighbour a Physician, who prescribed Fomentations, Embrocations, *&c.* but his Pain increasing, and the Physician not coming to him so often as he desired, the Patient went to the Physician, where renewing his complaint, I was sent for and viewed the *Podex*; but seeing no outward disturbance, I anointed my Finger with a little Butter, and in passing it up in *Ano* felt a Tumour, which with their leave I opened as in the former Observation hath been said. The Patient cried out he must ease himself; I finding nothing for him to do it in, and seeing by my Finger and Knife it was Matter, I bid him ease himself there; he did so, and discharged only a quantity of Matter well concocted. From that time he complained no more of Pain, and was cured within a day or two by the benefit of Nature; I declining to cast in any injections lest they should get into the Abscess and make it sinuous.

Chap. V.

Sinuous Ulcers and Fistulæ in Ano.

FROM the afore-recited *Hæmorrhoïdes & Phymata* Sinuous Ulcers are made.

Those proceeding from the internal Piles are made gradually, and pass their Matter (which is generally a thin gleet) between the Tunicles of the *Intestinum rectum*, making their way out near the verge of the *Anus* through a small pin-hole. They are rather discovered by the discharge of a thin Humour staining the Shirt, than by any pain they have; which discharge is often thought to be rather a Sweating of the Part than otherwise: but in progress it is accompanied with itching, and is subject to excoriation; from whence it is that various sorts of *Papulæ*, &c. do arise, and sometimes *Rhagades*. At last these sorts of Sinuous Ulcers spread outward or grow callous, and the Orifice groweth hard and so contracted that you cannot pass in the smallest Probe.

Those Ulcers which proceed from *Phymæ*, do pass their Matter deep amongst the *Interstitia* of the Muscles, as other Abscesses in fleshy parts do according as they can make their way. These sometime penetrate through the *Intestinum rectum*, to the very neck of the Bladder; yea into the *Pelvis*, or at best do insinuate their Matter in amongst the *Musculi Glutei*, &c. This happeneth according as the Apostemation at first lay deep or shallow, or was great or small, or in a body Plethorique or ill-habited. They are very painful, and discharge a purulent Matter proportionably as they are hollow, and are they which do *cuniculos agere*; yet they do grow callous, and are reckoned amongst the worst sorts of *Fistulæ Ani*.

The *Causes* I have already declared with the manner of their growth, by which I suppose they may be sufficiently discovered. If you make a search with

with a Probe into the sinuous Ulcer arising from the Piles, and the while pass your Finger into the *Anus*, you shall feel the Probe run all along between the Tunicles of the Intestine, and it may be pass out through the Pile which gave it its original: whereas, the other sinuous Ulcers have in their beginning no external Orifice, but discharge their Matter by Stool; but at length possibly they pass their Matter externally through one or more Orifices, more or less distant from the *Podex*, or according as the Abscess lay in the Intestine.

Prognostick. Sinuous Ulcers arising from the Piles are healthful, and ought not to be cured while they may be continued without pain or disturbance to the Patient.

Sinuous Ulcers arising from *Phymata* are dangerous and difficult of cure, if they have been of long continuance. The Ulcer in *Ano* is also of difficult cure, if it discharge great quantity of Matter by an opening so remote that you cannot lay it open with safety; but if the *Sinus* lye near the *Anus*, the cure will be more easie.

Sinuous Ulcers in progress of time grow callous, and are then deservedly called *Fistulæ*. What a *Fistula* is I have declared in its proper Chapter: How these Sinuous Ulcers become fistulous, I have shewed you in this foregoing Discourse with the Causes, *&c.* You may also make a Prognostick of them from what hath been said of sinuous Ulcers, they differing only from them as they are callous; for if *Fistulæ* do run superficially upwards by the *Rectum intestinum*, whether it penetrate the *Anus* or not, the cure is without danger or difficulty performed. Those *Fistulæ* which run higher up than you can reach with your Finger are difficult to cure, because you cannot lay them open the whole length, for the Humour will flow from the remaining *Sinus* upon the part opened, and hinders its cicatrizing.

Those *Fistulæ* which penetrate deep beyond the *Musculi Ani*, if they be cured by laying open, the Patient will afterwards retain his Excrements with much difficulty; and if they reach quite beyond the *Sphincter*, the retention is impossible.

If the *Fistula* be the effect of a *Cacochymical* Habit of body, especially if the Lungs be weak, or any other of the *Viscera*, it will be reasonable to keep it open as a Fontanel for discharge of that peccant Matter; but if it cannot be kept open with ease to the Patient, it will be requisite that a good Diet be prescribed, and the Humours carried off some other way before you cure the *Fistula*, and Issues elsewhere opened.

Cure. Palliative. *Fistulæ* therefore in *Ano* are not alway curable, nor safe to be cured; they frequently serving nature for the discharge of superfluous Humours, brought down by the Hæmorrhoidial vessels: so that unless they be painful and vexatious in keeping open, you ought not to cure them, especially if they be small and terminate in the circumference of the *Anus*.

In which case if you apprehend that the Orifices of them will swell and not keep open, or that by reason of the contraction of the *Callus* the Matter may be streightned, and insinuate it self lower or deeper, and render the evacuation troublesome; you may then apply a small Caustick upon the Orifice to remove the *Callus*, after which separation of the Slough, the Orifice may be kept open with more ease as a Fontanel; and for the receiving the Matter, and preventing of excoriation, the Patient may wear a Pledgit of fine Tow which will sit close without Bandage; or it may be spread thin with any lenient *Unguent*, as the exigency requires, and be kept clean without pain or considerable trouble, till time shall cure it, or indicate what to do more in it.

Curative. But if you design the Cure, and the *Sinus* lye more distant from the *Anus*,

you ſhall begin with laying it open firſt to the *Anus*, and curing that Apertion before you divide that in *Ano*. Which being done you ſhall then conſider the Habit of body, and according as the Humours are peccant in quantity or quality, ſo you may let Bloud or purge: but if there be no neceſſity of either, you ſhall preſcribe your Patient a good Diet to prevent Fluxion, and eſpecially a *Diarrhœa*, for a looſeneſs much diſturbs the Cure; therefore in ſuch caſes you are to forbear the dividing the *Sinus* till that be ſtopped.

The way of laying open the *Fiſtula in Ano* is either by Inciſion or Ligature; the latter was the way of the Ancients, and ought to be proportioned ſo as it may divide the *Sinus* with the leaſt pain: it is made of twiſted brown Thread, or ſtitching Silk, ſome put a Horſe-hair to them, whereby they are made to do their work the quicker; a twiſt of three Threads or of ſtitching Silk may be ſufficient, for if you make the Ligature big, it will too much bruiſe the Fleſh in cutting it. In the next place you are to conſider the Needle you paſs the Ligature with. If the *Fiſtula* hath penetrated the Inteſtine, then a Leaden Probe with an Eye, or of any thing elſe that is pliant, will ſerve to carry the Ligature through; it ought to be pliant, that it may perform its work with more eaſe: a piece of a ſearching-Candle may ſerve in ſome, in others a Probe of ſmall Wire of Silver or Gold; for a preſent ſupply I have made uſe of a ſmall Probe out of my Plaiſter-box, cutting off part of it, and ſmoothing the end. Where the *Fiſtula* hath not penetrated, I have for need made uſe of the like Probe making the point ſharp to paſs through the Inteſtine; but you ought to have Needles more pliant, fit for that work. In ſome caſes where the *Fiſtula* lies high, and the *Sinus* crooked, I make uſe of a fit *Canula* for the conveying of the Needle up, and to ſtrengthen it in its work, that it do not bend in the perforating the Inteſtine.

The way by Inciſion is with a pair of Sciſſors to divide the *Sinus*, a way approved by ſome who have obſerved the ſpeedy diviſion it makes; and in truth, if the *Sinus* be ſhort it is the beſt. In doing thereof they ought to be careful the while, leſt the folds of the rugous Coat fall between, for ſo you make two Wounds for one. But if the *Fiſtula* penetrate the Inteſtine deep, the work will be more hazardous, not only in the cutting as I ſaid before, but in progreſs of the Cure; for the recent divided Lips will be apt to fall upon one another again, and then what can hinder their uniting? which if they do the *Fiſtula* is renewed, a Doſſil or Tent put up the *Sinus* will not continue in it, but lye as a Suppoſitory ſtimulating the Inteſtine to excrete it: whereas the Ligature contuſes the Lips in cutting them, ſo that they require to be digeſted before they can unite, in which time the *Sinus* fills up and heals within; inſomuch as the *Fiſtula* may be judged to cure above, as the Ligature divides it below. I ſhall anon give you ſome inſtances of both ways, and leave it to your own Judgments to proceed as you like beſt. The manner of operation by Ligature is this.

You ſhall make a ſearch with a Probe into the *Fiſtula*, running up by the *Inteſtinum rectum*, and the while anoint your Finger with a little Oil or Butter and paſs it up; and according as you feel the Probe more or leſs diſtant, or penetrating, proceed in the Cure. If the *Fiſtula* be ſtreight and much callous, dilate it firſt with a *Gentian-root* or the like, and remove the *Callus* by ſuch *catharetick*s as have been propoſed in the Chapter of *Fiſtula* in general. But if that ſide be only callous which is next the Inteſtine, you may divide that in laying open the *Fiſtula*; therefore paſs your Ligature with a Needle blunt or ſharp, according as the *Fiſtula* penetrated or not; and as you paſs the Needle up with one hand, turn the point with your Finger which is in *Ano*, and bring it out under that Finger as you thruſt it up with the other: and if you paſs

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the Needle through a *Cannula*, you must first pass up the *Cannula*, and place the end of it against your Finger, which is in the *Intestinum rectum*, then another holding the *Cannula*, pass your Needle through it into the Gut; and as it is brought out by your Finger there slip off the *Cannula*, and hasten the Needle forward on its way, till you have brought it out with the Ligature: then cut off the Needle, and make a knot upon a fold of Linnen or bit of Plaister, to prevent, the Ligatures cutting the outside, tie it as streight as the Patient can bear, and let the second knot be with a bow: then place the ends of the Ligature on one side, lest it be fouled in going to Stool, and apply a Stupe of Tow dipt in *vino austero, & ol. ros.* to calm the heat of the part. Some make the knot upon a bit of Stick and twist it daily; but that is more painful, and cuts from without inward, which is to be avoided. I use to dress them daily after easement of Nature, and if there be cause, inject *Decoct. hordei cum sem. cydon.* and apply some Lenient as aboveSaid, or *unguent. rosat. popul.* &c. and the fourth day loosen the Ligature by drawing the bow-knot, and tye it streighter: so in twice or thrice tying the Ligature will cut its way out, or when it is almost through with a pair of Probe-scissors you may free the residue; or if the *Sinus* run deep under the verge of the *Anus*, that the Lips be like to lye high, so as to make a gutter, it will be better to take them down by the application of a Caustick, for it will much hasten the Cure, and make the *Cicatrix* smooth.

If there be any shriveld Piles, *Condylomata*, &c. about the verge of the *Anus*, cut them off at the same time or before you make the Ligature, to prevent the inflation they would be subject to from the pain caused by the Ligature or Incision. The *Sinus* laid open, whether it were by Incision or Ligature, the Ulcer requires to be digested, incarned and cicatrized, as hath been shewed in other Ulcers, and shall be more particularly demonstrated in the following Observations.

A Young married Wife being diseased in *Ano*, with great Pain and discharge of Matter, advised Midwives and others, who though they could not discover the cause of her Pain, yet prescribed Medicaments and kept her long in their hands, to the great increase of her Malady. At length I was consulted, and discovering nothing outward about the *Anus*, I passed my Finger up into the *Rectum intestinum*; about an inch within on the left side I felt a Perforation, I pulled back my Finger and saw it Mattery; I concluded that was the Orifice of the Ulcer, and supposed its *Sinus* lay amongst the Muscles, and that it took its Original from a *Phyma*, which she concealing, as in that modest Sex it frequently happens, the Matter had corroded and penetrated the *Intestinum rectum*, and the adjacent fleshy parts: I pressed with my Fingers on the outside where I conjectured the Abscess to ly, and though I felt the *Sinus*; I marked the place, & purposed the opening it when it should be desired. At that time my business was to satisfie the Relations concerning her Disease, which I declared to be an Ulcer in *Ano*, and for further proof offered to open it in that place I had marked; which they consenting to, I came about ten days after, and applied a Caustick upon that very place in the presence of some of her Kinswomen, and the next day divided the Escar, and passing the Knife down into it I met with the *Sinus*, & drawing my Incision towards the *Anus*, under the *coccix* gave vent to the Matter; then passed a Ligature with a blunt-pointed Needle, through the *Sinus* into the Gut, and with my Finger in *Ano* bowed the end of the Probe, and as I thrust it in with one hand, brought it out with my Finger of the other; then cut off the Needle, and tied the Ligature on a fast knot, and dressed the Ulcer with *unguent. basilicon* dipt in a little *ol. ros.*

1. Observat. of a Sinuous Ulcer.

ros. warm to hasten the separation of the Eschar. They continued this way of dressing it daily, till the Eschar separated, then I tied the Ligature streighter, and in few days cut it through, and digested the Ulcer with the common digestive; and deterged, incarned with *mundif. Paracels.* with the addition of *Merc. præcipitat.* and afterwards cicatrized it by the help of the Vitriol and Allum-stone firm: since that she enjoys her health well.

2. Observat. of a Sinuous Ulcer.

A Gentleman of a full Body, aged about thirty six years, came to *London* labouring under various Diseases, as the Gout, Collick and Stone in the Kidney, and a sinuous Ulcer *in Ano.* Sir *Fra. Prujean* was his Physician and sent for me. The *Sinus* did stretch it self down from the verge of the *Anus* near the *coccix*, towards the *perineum*, about two inches, discharging much Matter. I laid open the *Sinus* with a pair of Probe-scissors to the *Anus*, and dressed it up with the Digestive *ex terebinth.* spread upon Dossils dipt in *pulv. Galeni*, with *Emplastr. è bolo* over it, and Compress & Bandage to retain it on. I afterwards deterged *cum mundif. Paracels. & Merc. præcipitat.* with the help of the Vitriol-stone, and with Epuloticks, Unguents, *aq. calcis*, &c. cicatrized that *Sinus* to the verge of the *Anus*: then consulting the Physician in the prosecuting of the Cure, we considered the Patients ill Habit of Body, and the advantage he might receive in keeping the Ulcer open as a Fontanel for the discharge of peccant Humours. This being resolved upon, I advised the Patient to apply upon it a Pledgit of fine soft Tow morning and evening, or so often as occasion required; it kept on without Bandage, and received the Matter which discharged, and served as a Fontanel without any disturbance to him in riding or sitting. Thus it was continued some years with great ease and advantage to his health; but since that Physicians death, the Patient was perswaded by others to have it cured. I was sent for and made a search, and found it had perforated the *Anus* about half an inch within the *Rectum*: I passed a Ligature with a piece of a Wax searching-Candle, and tied the Ligature streight upon a fold of Plaister to prevent the cutting outwardly; then cut off the overplus of the Ligature, applied a Pledgit spread with *unguent. alb. camph.* over all. The Servants renewed the dressings so often as he went to Stool, and the fourth day I loosened the Bow-knot; and finding the Ligature near passed through, divided it with a pair of Probe-scissors, and dressed it up with the common Digestive: after it was digested I dressed it with *unguent. diapomp.* upon a Pledgit of Tow, and cleansed the Ulcer daily with *aq. lap. med. Crollii*, and in a few days cicatrized it; he returned to his house into the Country, but being a diseased person he lived not a year after.

3. Observat. of a Sinuous Ulcer.

A Person aged about thirty years, of a sickly Constitution, subject to Cough and Rheums, being one day costive, and straining to ease nature, felt somewhat slip down as it were between the Tunicles of the *Intestinum rectum*, to the verge of the *Anus*, which lay uneasie; he put up his Finger and felt a small Tubercle of the bigness of a large Pea, which increasing setled somewhat lower, and made a hard Swelling without the verge of the *Anus* on the right side, and in few days raised it self into a Tumour as big as a Pidgeons-Egg, and inflamed and suppurated. I was then consulted, and opened it by Caustick, and discharged about two or three spoonfuls of a digested white Matter: after separation of the Eschar, I finding much Matter discharged out of it, I made a search, and found it run up close along the *Rectum*; I laid it open to the *Anus* by a snip with a pair of Probe-scissors, and dresst it with a Dossil spread with *unguent. basilicon*, and a Pledgit of soft fine Tow spread with *unguent. album* over it, and in few days cured it to the verge of the *Anus*. Then considering the Patient labouring under a Cough with other obstructions, I proposed to him the continuing this Ulcer open as a Fontanel, till he should recover

cover his health better, and that if he found any inconveniency by it, I would readily cure it. I advised only a Pledgit of Tow to be applied to it, with directions to renew it as he should see cause. I took leave of him, he followed my directions, and finding no inconveniency in riding, walking, or the like, continued it as a Fontanel to his much advantage; he recovering his health very well afterwards, and is yet alive.

4. Observat. of a *Fistula in Ano*.

A Gentleman of about forty years old came out of the Country, labouring of a *Fistula in Ano*, breaking out on the left side: it arose from a *Phyma*, (I suppose;) the *Sinus* was large and painful, the Matter having spread under it. If I had laid this open by Incision, the Lips would have lien hollow, and have rendred the Ulcer slow in curing; therefore I removed them by Caustick, laying the Ulcer open to the *Anus*, and after separation of the Escar, digested, incarned and cicatrized it: then made a search with a Probe, putting my Finger in *Ano* the while, and feeling the Probe pass into the Gut about an inch high, I prepared a Ligature, and with a Probe-needle passed it up into the Gut; then turned the end of the Needle downward under my Finger, & made a deligation, as in the like case hath been shewed, & applied a Stupe spread with *unguent. nutritum* over all. The next day dressing it again I found the part a little heated, and a Pile that was before the making of the Ligature (lank and withered) swelled and beginning to inflame; wherefore doubting it might be troublesom, I cut it off close by the root, and rub'd it with a Caustick-stone to stop the bleeding, and consume the remainder of it. Then I dressed up the Escars with a Pledgit spread with *unguent. basilicon* and the *nutritum* over all. The fifth day I streightned the Ligature again, and dressed it up with a Stupe spred with *unguent. nutritum* as before; and as occasion offered I syringed the part affected with a *Decoct. hordei*, with a little Syrup *de ros. siccis*. About the tenth day of the Ligature, I observed it cut so near through as it was easie for me to divide the rest by a snip of a pair of Scissors; yet in consideration that the Ulcer was deep, and consequently the Lips so cut, would lye high and be apt to receive Excrements, which might make it painful and very troublesom, I chose rather to free my self of them by rubbing through them with a Caustick-stone: which having done and flatted them as I designed, I pulled the Ligature to me, and the while passed my Probe-scissors under, and divided the *Sinus*; and pulling away the Ligature uncut, dressed up the Ulcer with a Pledgit dipt in *basilicon* warm, and applied a Stupe wrung out of red Wine over it. After separation of the Escar, I incarned and cicatrized with *unguent. tutiæ*, &c. as aforesaid.

5. Observat. of an Ulcer in *Ano*.

A Gentleman of about forty years of age, having labouring long under Chronick Diseases, with great irregularity in Diet, *&c.* during which, Nature to ease her self, discharged some part of the Disease in an Abscess in his left Inguen, and another in *Ano*. This latter discharged a great quantity of Matter daily, and was exasperated by a *Diarrhœa*. The former *in Inguine*, (he not permitting it to be opened by his Chirurgeon) had made its way through the Skin in many little openings, and lay ulcerated under it about three inches in length, & in no condition to cure. Doctor *Tern* was his Physician, and by his prescriptions had opposed the various Symptoms that threatned the life of the Patient; but the Patient being ungovernable, I was called in, and seeing him much emaciated and cachectick, not likely to be cured till he should attain a better Habit of body, purposed to palliate these Ulcers a while: that *in Inguine* by dressing it with Pledgits of *unguent. diapomp.* and *cerat. dialthææ* over it, whereby the Matter might be moderately discharged, and the Tumour mollified, & rendred less subject to Fluxion. The Sinuous Ulcer in *Ano* was not capable of healing, while he laboured under such a *Diarrhœa*; but that it might be the better disposed

poſed thereto, I laid the *Sinus* open by Ligature, and thereby freed the tender Lips from the Excoriations they were before ſubject to; it was dreſſed with Lenients, and thereby the Matter was diſcharged with more eaſe, and the Ulcer diſpoſed to cure, when Nature ſhould be that way inclined: which, that it might the ſooner be ſo, his Phyſician preſcribed this Traumatick decoction, ℞ *fol. millefolii* M.ij. *veronic. bugul. ſanic. alchimil. flor. hyper. an.* P.j. *glycyrrhiz.* ℥ij. *coq. in aq. font. ad* ℔ij. *in colat. diſſolv. ſyr. è ſymphyt.* Fernel. ℥ij. *bibat* ℥iv. *ter in die horis Medicinalibus.* Alſo theſe Balſamick Pills, ℞ *terebinth. chiæ* ℥ij. *bezoard. mineral.* ʒj. *balſam. ſolut.* ʒiv. *glycyrrhiz. pulv.* ʒj. *fiant pilul. ſumat* ʒß. *quotidie manè & veſperi.* In the time of his *Diarrhœa* his Phyſician preſcribed this, ℞ *rhei elect. parum torrefact. & aq. cinam. irrorat.* ʒß. *ſalis tartari* gr. iij. *conſ. roſ. rub.* gr. xxv. M. *fiat bolus quem ſumat manè per triduum.* This Julep was alſo preſcribed him, ℞ *aq. cinamomi hordeat. menthæ criſp. an.* ℥iv. *ſpir. menth.* ℥ij. *ſyr. è corallis camp.* ℥x. M. *de quo bibat coch.* iij. *pro re nata.* Alſo this Antiſcorbutick, ℞ *aq. cinam. tenuior. ſucc. cochlear. hortenſ. an.* ℥vj. *ſacchar. cryſt.* ℥viij. *digeratur in balneo, ſumat cochlear in ſing. hauſt. potûs ordinarii.* At other times he took *calomel.* gr. xx. *in conſ. roſ. rub.* ʒß. The Patient thus ſupplied with different preſcriptions, according to the exigency; the Spring coming on he retired to *Chelſey*, where following the method preſcribed he recovered ſtrength, and the diſcharge of Matter leſſened; and conſequently his Ulcers became ſo well-conditioned, as his Friends and Servants about him were capable of dreſſing him, and in few months he grew more healthful and fat. That Abſceſs in his Groin healed up by the Medicaments aforementioned, but that *Fiſtula in Ano* we thought fit to continue as a Fontanel for his health-ſake; which he kept eaſie by wearing a Pledgit of fine Tow on it, till at length it healed up of it ſelf: he is now grown fat.

6. Obſervat. of a *Fiſtula* in *Ano.*

A Woman aged about thirty four years, diſeaſed with a *Fiſtula in Ano*, having tried unſucceſsfully the endeavours of ſuch Medicaments as thoſe of her own Sex could adviſe her; at the laſt ſent for me. It took its original from a *Phyma in Ano*, which had paſſed its Matter in a *Sinus* down to the *Perinæum*. I laid open the Ulcer to the verge of the *Anus*, and cut off a withered Pile that was ſwelled (from the anguiſh of the Ulcer) to prevent its further inflaming; then applied a Pledgit dipt in *album. ovi, & cum pulv. Galeni*, and a Stupe of Tow ſpread with an Aſtringent over it with Bandage. The next day I dreſſed her with a Digeſtive of *baſilicon*, and a Pledgit of *unguent. nutritum* over it; and left her Dreſſings, and viſited her my ſelf once in three or four days. That Ulcer being cured, to the *Fiſtula* I made a ſearch with a Probe, and paſſed my Finger up in *Ano*, and felt the Probe about three quarters of an inch within, but not penetrating: The *Sinus* was ſmall, wherefore I put up a Gentian-tent, with a ſtring faſtned to it, and left them ſome of the ſame ſort to put up daily to dilate it. The third day after they ſent for me again, they had thruſt the tent too far, ſo that in pulling it out the ſtring came away, leaving the tent behind: I anointed my Finger with a little Butter, and thruſt it up the Inteſtine higher than the *Sinus*, then drawing my Finger back over the *Sinus*, I thruſt the tent out; then laid open this *Fiſtula* by Inciſion with a pair of Probe-ſciſſors, paſſing one ſhaft into the *Sinus* and the other with my Finger in *Anum*, guiding it up the hight, & with one ſnip laid the *Fiſtula* open, then applied a Doſſil ſpread with a mixture of *pulv. Galeni cum albumine ovi*, & bound it up with a Stupe ſpread with *unguent. nutritum*, and left her Dreſſings with directions how to apply them. I preſumed by this way of Inciſion the Cure would be the ſooner effected, and with fewer viſits from me; but the *Sinus* fill'd up with looſe Fleſh, and the Doſſils I left them to cicatrize it with, commonly ſlipt out of the *Sinus*, and lay uneaſie not unlike a Suppoſitory, putting her upon a

Teneſmus,

Tenesmus, and if the Injections were any thing absterſive they did the ſame; ſo that to haſten the Cure I was obliged to dreſs it my ſelf, and dry the looſe Fleſh by rubbing the *Sinus* with the Vitriol-ſtone; by which, and the Alum-ſtone, I at laſt cicatrized it.

7. Obſervat. of a *Fiſtula in Ano.*

A Gentleman aged about forty four years, having long laboured with a *Fiſtula in Ano*, and a Tumour *in Perinæo*, growing at laſt extreamly diſeaſed with it, was brought up to *London*, and ſent for me. The Tumour was *in Perinæo* big, and ſeemed to me callous, it reached from the *Anus* to the *Scrotum*; and by the Matter I ſaw diſcharged from the *Anus*, I concluded the Tumour was made by its inſinuating it ſelf downward, and that through length of time it was grown callous. The compreſſion it made upon the *Ductus urinarius*, cauſed a difficulty in Urine, upon which account my ſpeedy help was required. I began the Cure by laying this *Sinus* open by Inciſion, from the *Scrotum* towards the *Anus*: in cutting it I found the *Sinus* ſmall, and the Matter in it little and thin, rather an Ichor; but the Lips were hard and thick, and did not much ſeparate one from another: wherefore having applied a Doſſil ſpread with *unguent. baſilicon* in the bottom of the *Sinus* to defend it, I applied a Cauſtick-ſtone on each Lip, from the *Scrotum* upwards, and ſome hours after took it off; and finding it had penetrated the *Callus*, as I deſigned, I bathed it with *Decoct. malvæ*, &c. and dreſſed it up with Lenients, after the ſeparation of the Eſcars I found that part freed of the *Callus*. I digeſted it with *baſilicon* and *præcipitat.* and with *unguent. diapompholig.* healed that Part. Then applied a Cauſtick upon the remainder reaching to the verge of the *Anus*, and freed that alſo of its *Callus*, and diſpoſed it to cicatrize; which while I was doing, I made a ſearch with a Probe, paſſing it into the *Anus*, where I quickly diſcovered that about half an inch high the *Sinus* opened into the Inteſtine. It had run deep all the way, and here it lay deeper and more callous. Upon which conſideration I paſſed up a *Speculum ani*, and during the dilatation, laid it open with a Cauſtick-ſtone in my hand by rubbing it, then waſht out the Salts, and cut through the upper part of the *Fiſtula* with a pair of Probe-ſciſſors; that done, I injected ſome *ol. lini* to haſten the fall of the Eſcars: which being ſeparated, I digeſted it with *unguent. baſilicon* and *præcipitat.* and dried the Ulcer with the Vitriol-ſtone and Pledgits dipt in *aq. aluminis*, and cicatrized it firm, and returned him cured in few weeks.

8. Obſervat. of a *Fiſtula in Ano.*

I was fetcht to a Gentleman aged about fifty years, who had been long diſeaſed with the *Hæmorrhoïdes*, and ſeveral Apoſtemations the ſpace of twenty two years; the Matter had paſſed through the *Inteſtinum rectum* into the *Muſculi glutei* making various fiſtulous Ulcers, but one in *Perinæo*, which through length of time was encreaſed to a great bigneſs, and reached to the *Scrotum*. I began with that, by the application of a Cauſtick from the *Scrotum* upward, and divided the Eſcar; there iſſued out only a little foul Gleet, which had flowed into it from within the *Inteſtinum rectum*. I dreſſed this Eſcar with Lenients, as in the former Obſervation hath been ſhewed: and as it ſeparated with the *Callus*, the *Sinus* appeared dry and hardned with thick Lips, lying not unlike a trough: therein appeared many Excreſcences, which put me upon the uſe of Eſcaroticks, *viz.* the Cauſtick-ſtone, Præcipitate, Alum, *&c.* Alſo by the uſe of the Vitriol-ſtone I rubbed them off, and diſpoſed the Ulcer to cicatrize: then I applied a Cauſtick to the remaining *Callus*, which run up from thence to the *Anus*, the pain whereof ſtirred up a Swelling in ſome withered Piles. To prevent their inflaming, and to put them out of my way, I ſnipt them off cloſe by the roots, and after they had bled a-while, I rubb'd them with a Cauſtick-ſtone, and dreſſed them up with a Stupe of fine Tow, ſpread with *unguent. baſilicon*: having digeſted theſe, and diſpoſed this part of the *Sinus* to

Cure,& the lower part(which I firſt began with)being cured,I made a ſearch into the remaining *Sinus's*, which lay on each ſide the *Anus*; thoſe I opened by Inciſion and Cauſtick, digeſted and cured them. Then I made a ſearch into the great *Fiſtula*, which had penetrated the *Rectum* about three quarters of an inch within, and paſſed a Ligature through it, and tied it ſtreight. The while it was dividing, I fomented the *Anus* with red Wine daily, and caſt up Lenient injections,to eaſe the pain and cleanſe it: and after I found the Ligature had made its way near out I looſened it,and with a Cauſtick-ſtone rubb'd the remaining *Callus* off,for that by Inciſion it would have been long digeſting, and the *Sinus* would have lain deep,and the Lips troubleſome after the Cure. The *Callus* divided & the Ligature come away,the Eſcar ſeparated by Lenients and the Ulcer cicatrized: in very few days the bottom of the *Sinus* having been hardned by the *Callus*, remained as a ſmall gutter in ſpight of my endeavours to the contrary; but it proved no great inconvenience to the Patient,he being perfectly wel. And from that time following his Imployment daily abroad

9. Obſervat. of a *Fiſtula* in *Ano.*

A Gentleman of about forty years of age, a ſtrong healthful Perſon, of a Plethorique body,after a hard riding in hunting,was ſeized with a pain in the *Inteſtinum rectum*; and a few days after with a Swelling and Inflammation about the *Anus*, which terminated in an Abſceſs, and was opened on the left ſide near the *Perinæum*. After two years the Abſceſs remaining uncured, the Patient came to *London*, and put himſelf into the hands of Sir *Fr. Prujean*, who recommended him to me: Sir *Charles Scarborough*, ſince Phyſician to his Majeſty, and to his Royal Highneſs the Duke of *York*, as alſo Doctor *Warner* were ſome time conſulted. There were two Sinuous Ulcers, one on the left, and the other on the right ſide of the *Perinæum*; they had both communication with one another near the *Anus*, and paſſed up between the *Anus* and Bladder as we ſuppoſed, for we could not make a ſearch far up,till theſe were laid open: to which purpoſe I haſtened the dilatation of them by *Gentian-roots*,&c. and afterwards with Cauſtick and Sciſſors laid them both open; then by Digeſtion diſpoſed them to cure. That effected we met again,& I made a ſearch with a Probe up the main *Sinus*,& diſcovered it running between the neck of the Bladder and *Inteſtinum rectum* above an inch high, but could not feel the Probe with my Finger in *Ano*: it was hoped the *Sinus* reached no further,but pulling out the Probe & bending it,I paſſed it up again by the rub I met with before, & diſcovered the *Fiſtula* at leaſt half an inch higher; and by preſſing the end of the Probe towards the ſide of the Inteſtine,I did with my Finger there feel as I thought the end of the Probe,but at a great diſtance off, by which I well perceived it would be a difficult work to penetrate it, and bring the Needle out with my Finger,the *Sinus* being ſo high as I could ſcarce reach the end of the Probe with my Fingers end. It lay off ſuch a diſtance from the Inteſtine,as I could not paſs a ſmall Needle without a *Cannula*,and a bigger which was proper for the penetration of the Gut,would not ply enough to be returned out with my Finger by the *Anus*; and to lay a *Sinus* open of that length and thickneſs by a pair of Probe-ſciſſors,was very improbable; wherefore I reſolved to dilate it, and try how I could digeſt off the *Callus*. To which purpoſe I dreſt it daily with a Tent made of a *Gentian-root*,and afterwards endeavoured to conſume the *Callus* by Tents made with Lint, and the white of an Egg cruſted with a mixture of *Merc. præcipitat.* and *alumen. uſt.* over which I applied a Pledgit of *unguent. baſilicon*, and a Stupe of fine Tow ſpread with a mixture of *unguent. nutritum & popul.* over that: from that time I fomented the pained part daily with an Emollient Decoction, and repeated the Lenient applications, but removed not the Tent till it ſeparated with its ſloughs. Having thus waſted the *Callus*, I left off the uſe of thoſe

Tents,

Tents and dressed it with others armed with Digestives,& shortned these daily: during this work the Patient drank a vulnerary Decoction, and took such Balsamicks as the Physicians judged necessary. After I saw the *Sinus* well digested and but little Matter, I left off the use of the Tent (lest by keeping it longer open it should skin again within) and in few days cicatrized it, but some while after it brake out again; and upon search I found the *Sinus* open as at first. I attempted the wasting the *Callus* again; but seeing no good come of it, I tried by an Injection of *aq. lap. Medicament.* but that only shrivell'd up the *Sinus* and might have been of good use to palliate: but my work being to cure, I dilated the *Fistula* with *rad. gentianæ* in order to the laying it open; and then calling in a Chirurgeon well experienced in this Art, who met the Physicians and my self,he made a search and concluded the way by Ligature proper. The Patient being prepared for the work, laid himself over a Chair: but when I came to pass up the *Cannula*, the Patient grew so unquiet as my brother Chirurgeon desired me to forbear, he supposing by the Patients complaint that it was cancerous; and advised me to proceed in the cure by Injections, which I having no faith in,desired the Patient that my brother Chirurgeon might bring his Injection,and dress the *Fistula* for some time: which accordingly he did some days; but seeing it unsuccessful, he then advised the Patient to retire into the Country,and content himself with a palliative Cure. But the Patient being sensible enough that the Cure was feasable, if he could once resolve upon it; wherefore he dismissed the Chirurgeon,and sometime after took new resolutions & sent for another,who was no less eminent in this Cure than the other; he came and made a search,& approved of the dividing the *Fistula* by Ligature,and commended the way as both safe and easie: a day was prefixed, and the while I dilated again the *Sinus* with *Gentian-roots*. The day the operation was to be performed, the Patient dined abroad, and when we met and placed him in the light to proceed in our work, the *Gentian*-tent was fallen out, and the *Sinus* was closing; but we being resolved not to lose that opportunity, I dipt the *Cannula* in Oil, and passed it up about an inch, but then meeting with the old rub, the Patient began to be troublesome,and would have perswaded us to desist. The Chirurgeon supposing I was at the height, advised me to pass the Needle; but I knowing the *Sinus* reached further, and the inconvenience which might happen in the Cure by doing so, minded him not, but pushing the *Cannula* upward as I had designed, till I felt the end of it with my Finger, which was the while in *Ano:* that done I put the *Cannula* into my brother Chirurgeons hand to hold there, while I passed the Needle into it,and through the Intestine to my Finger within,with which I bended the point of the Needle, and drew it out of the *Anus* with the Ligature hanging at it. I then cut off the Needle with part of the Ligature, and having applied a fold of Plaister on the place, I tied the Ligature streight, and fastned it with a bow-knot, and applied a Stupe of fine Tow, spread with a mixture of *unguent. popul.* and *nutritum* over it. The Patient being drest threw himself upon his Bed, my brother Chirurgeon told him the work was well done, and that he ought to account that day, as the day of his Birth, there being no hopes of Cure any other way; so took his leave. The Patient rested very ill that night,and was the next day severish,and continued restless by reason of the pain,notwithstanding all my endeavours by Lenients. The third day after I was sent for in great haste, he being dying as they said; I found him shrewdly alarm'd, he had newly voided three or four spoonfuls of Matter (as they called it) in his Urin; upon which it was concluded by them that I had wounded his Bladder in passing the Needle,and that I had passed it farther than my brother Chirurgeon advised. I was somewhat surprized at

their Language, and replied, there was a neceſſity of laying open the *Fiſtula* the whole length: looking in the Urinal I ſaw ſuch a quantity of thick Mattery ſubſtance, but could not imagine how I ſhould hurt the Bladder in paſſing the Needle; but there was no anſwering them. I carried the Urinal to Sir *Fr. Pruj.* he cauſed ſome of it to be heated in a ſpoon over a Candle, where it hardned, by which we were aſſured it was not Matter; he concluded it made in the Bladder, by the heat and diſturbance it had received from the Neighbouring parts. I returned to my Patient with the Phyſicians anſwer, which ſomewhat quieted them; but that expreſſion of my brother Chirurgeon had done me ſome prejudice, if the Patient had not recovered. Thus it uſually happens amongſt us in Operations, where they prove unſucceſsful. From that time the Ligature made its way more eaſily, I taking more time in the cutting through the *Callus*, by which compliance it was above ſixteen days cutting its way out; all which time Injections were caſt up after his going to Stooll, and the Part affected was treated with Fomentations and Lenients, and at length the Ligature made its own way out: during which the *Sinus* above cured, ſo as I had nothing to do but to cicatrize the outmoſt part, which I did with Lotions and Pledgits dipt in *aq. calcis*, &c. in a few days after; and the Patient returned joyfully to his ſports in the Country, and relapſed no more.

16 Obſervat. of a putrid and fiſtulous Ulcer in *Ano.*

I was ſent for to a Gentleman of about thirty ſix years old, much emaciated and of a very ill Habit of Body; he was diſeaſed with a painful Tumour on the left ſide of the *Anus*, reaching from the *Os coccix* to the *Perinæum*, of a dark red colour hard in the circumference, but along the verge of the *Anus*, it felt ſoft; it ſeemed to ariſe from under the *Anus*, and to be an ill-conditioned Tumour: I applied a Cauſtick upon the ſoft part according to the length of it near the *Anus*, and ſome hours after divided the Eſcar, and gave vent to a fœtid brown Matter. I dreſſed the Eſcar with *unguent. baſilicon cum oleo terebinth.* and applied a Cataplaſm over it of *far. fabar. pulv. ſem. fœnug. lini, flor. chamomel. ſambuci, roſ. rub.* decocted in *oxymel*; as the Eſcar ſeparated the Ulcer ſhewed it ſelf putrid. I fomented it with a *lixivium* wherein good ſtore of wormwood had been boiled, and dreſſed the Ulcer with *mundif. Paracelſ. cum præcipitat. & alum.* and the Eſcar with Lenients, *&c.* as before.

This Patient had laboured ſome weeks of a *Diarrhœa*, which after the Eſcar was ſeparated flowed into the Ulcer, and much diſturbed our Cure; therefore I cauſed an Injection to be made of a *Decoct. abſinth. hyperici, ſcord. centaur.* &c. to which I added *ſpir. vini, mell. roſ.* and *unguent. Ægyptiaci*; and that the Excrements or *ſordes* might not be retained, and render the Ulcer more ſinuous, I cut it open the whole length above and below, and fill'd it up with *Merc. præcipitat.* with the *mundificative* upon Doſſils, and with Plaiſter and Bandage retained them on. Then preſcribed him a *Decoct. ſarſap.* &c. alſo an Electuary of *conſ. roſ. rub. diaſcord. & rhei torrefact.* &c. which he took once in four hours, and thereby ſtopped his looſeneſs. The Ulcer not deterging with the former applications, I dreſſed it with *pulv. Jo. Arden.* and defended the Lips with *unguent. baſilicon*, and an *Emplaſtr. è bolo* over all. Thus in two or three dreſſings I conſumed the *ſordes*, then dreſſed it with *mundif. Paracelſ.* and *præcipitate*; and applied Stupes of Tow over it preſt out of red Wine, wherein had been infuſed *flor. roſ. rub. balauſt.* &c. and afterwards preſcribed him the taking of *calomel.* ℈j. every other night. Thus the Ulcer deterged, I incarned it with *pulv. aloes hæpat. myrrhæ, ſarcocol. rad. ariſtoloch. rot. ireos florent. lap. calamin.* made up into the form of an Unguent with *mel. roſ.* While this was incarning, and in ſome parts cicatrized, a *Sinus* appeared running under the verge of the *Anus* about half an inch; I applied a Tent armed with the *mundif. Paracelſ.* and after it was deterged, left out the Tent and it cured. But then a ſmall *Sinus* diſcovered

vered it self on the other side of the *Anus;* upon sight thereof, lest more mischief should fall upon those weak parts, (whilst I attended the cure of that Sinuous Ulcer under the *Anus*) I dilated it, and snipt it open with a pair of Probe-scissors into that great *Sinus*, & from that time the Ulcer cured, and I thought my work had been done: but within a few days after another *Sinus* appeared near the verge of the *Anus*, on that side where the former was; it much discouraged the Patient, but it lying so convenient for discharge of the peccant Matter, I continued it to further consideration, it proceeding from the meer weakness of the part. I advised the keeping it clean, and to wear a dry Pledgit of Tow over it: It was kept with much ease, and the Patient enjoyed his health very well many years, and at length it cured of it self.

11. Observat. of an Ulcer in *intestino recto* with stricture of the *Anus.*

A Person of Honour having some months laboured (as was supposed) under the Piles, being extreamly wasted with the pain & accidents which attended it, sent for me to consult with his Chirurgeon; I went, & there I also met Dr. *Tho. Cox* his Physician. The Patient discharged a purulent Matter *per Anum* as he lay in his bed, & in each Stool a great quantity came away with his Excrements; on the left side of the *Anus* lay an Abscess perfectly suppurated, to which we presently applied a Caustick, and gave vent to a digested Matter. I then made a search with a Probe, and the while passing my Finger in *Ano*, felt the Probe in the *Intestinum rectum* about an inch deep; I pulled it out & endeavoured by my Finger in *Ano* to find what *Sinus* or cavities there were, & felt one above the *Sphincter* in that part of the Gut lying next the Bladder: I supposed the Abscess was there, and that the Matter from thence had insinuated it self amongst the Muscles, and made that Tumour outwardly, which we had opened by Caustick. What it was that gave original to that Ulcer, was not easie for me to determine, whether it was a *Phyma*, or a translation of Matter from some other part: However it was, the Cure was difficult and depended upon a rectifying the Habit of body, it being by what I then felt out of our reach to lay more open; nor did I think it safe to be over-hasty in injecting Liquors there, I always suspecting the seminal Vessels concerned in those Abscesses, in which cases Injections may dilate the Ulcer, and hasten its penetration into the *Pelvis*; therefore we dressed it up with Lenients to hasten separation of the Escar: after the Escar separated, we made a search with a bended Probe, and turning it upward, found a cavity amongst the Muscles on that side; by which it seemed to us, that the laying that *Sinus* open into the former would be of no great advantage, we thereby could only divide the upper part of the Abscess, and so make the first Orifice wider: yet it seeming somewhat advantageous to the discharge of Matter, we passed a Ligature through, and in few days divided that *Sinus*, and soon after cured it again; for the discharge of Matter continued very great *per Anum*. The Patient continuing weak and more indisposed, Sir *Alex. Fraser* was consulted, who seeing such a discharge of Matter *per Anum*, concluded that an opening ought there to be made in some external part; we had several times endeavoured to find some place amongst the external Muscles of the *Anus* and *Glutei*: and now again we raised the Patient upon his Knees in Bed to search, but we could not by Fluctuation or otherwise discover ought, whereby we might be encouraged to apply a Caustick; whilst he was in this posture, the Matter poured forth, as also when he lay down in his Bed it came involuntarily out. We having in a former search with a bended Probe, discovered a cavity amongst these Muscles beneath the former Abscess, it was resolved that an opening should be made there; but that cavity lay at such a distance within, that it was not easie to reach it by Caustick: wherefore I having at my house an Instrument proper to open Sinuous Ulcers so lodged, I sent for an Instrument-

maker,

maker, who upon sight of that and the cavity we designed to pierce, fitted us with one somewhat like a crooked *Forceps*; one leg thereof we passed into the *Anus*, which being crooked turned up into the cavity, and being there, the other shaft having a sharp blade in the form of a great Lancet fixed in it, would at our pleasure cut in upon the other, which was the Director: thus we cut into the Buttock from without inward, and that we might not lose the opening we had made, we presently passed a *Fistula*-needle through it with a Ligature which we brought out *per Anum*; and having tied the ends together, we fastned it on one side with a snip of Plaister, & dressed up the wound with a proportionable Tent armed with a Digestive. From that time we dilated it daily towards the Buttock, to try whether the Matter would that way discharge. The Physicians prescribed vulnerary Drinks, Balsamicks; Cordial Bolus's and Juleps were also prescribed, Lenients to appease the *Tenesmus*, and somewhat of Injections we considered of to cast up in some little quantity to heal the Abscess which lay above the *Sphincter*. After we had some-while continued that opening last made, and observed it painful, and not to empty the Matter, nor divert it from flowing its wonted way, we cut it down to the *Anus* & cured it. From that time we applied our endeavours to cure the Ulcer within, whence (it was most certain) all the abundance of Matter issued. The method used was by detergent Injections, such as have been proposed in the Chapter of Sinuous Ulcers; but without acrimony to avoid a *Tenesmus*, and in small quantity at a time lest it should be retained and render the Ulcer more Sinuous. After we had thus spent some time successfully, and by the Physicians help removed the severer accidents; it was resolved (the weather growing being warmer) that the Patient should remove to *Kensington*, and take the benefit of the fresh air, and observe a Milk-Diet, and prosecute his Cure there. Whilst the Patient was weak and kept his Bed, and was vexed with *Diarrhœa's*, &c. we could not observe any want he had of the retentive faculty; but being in the Country somewhat recovered, and walking daily abroad, he complained that he could not retain his Excrements, they pressing almost continually forth. We went on our method in curing the Ulcer, and accordingly it contracted daily narrower, and the discharge of Matter grew less; but as the Ulcer cicatrized, he found his Excrements did not come away, but with great straining, and those that came away, were small like Earth-worms: he also complaining of frequent pain in his Hips and *Os sacrum*, sent for his Chirurgeon and my self; we went and prevailed with him, to let us put up our Fingers dipt in a little Oil, upon search we found a stop about an inch or more within the *Rectum*, the Gut pursed up so close, that I could not get in my Fore-finger to the first joint. This was by reason of the *cicatrix*; we caused presently a Decoction to be made of *rad. lilior. albor. althæa, sem. lini & hordei*, to which was added some *ol. ex ped. bovinis*, and injected some of it: we directed the repeating of it often in a day, and to permit a Syringe full to be cast in at his going to sleep at night; we afterwards dilated it with Tents of *Gentian-roots*, and between while others of Deer-suet, some whereof were fitted with strings. A consultation was also resolved on for the Physicians to meet us at, which time we came provided with a *spec. Ani*, &c. in order to the dilating of the stricture: but the Patient would not admit it, he being eased by the use of the Emollient Decoction; but replied, if it again contracted, he would come to Town and be governed by us. Some months after the Winter approaching, he returned to Town; his Excrements were suppressed, and his Belly swelling, his Urin also high-coloured and near suppressed: his Physicians prescribed him a Clyster that Evening, and a Purging-draught of *Decoct. cassiæ, tamarind. &c.* he omitted the taking of the Clyster, but took the Purge

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the next morning, which bearing down the Excrements, so over-distended the *Colon*, that the way between that and the *Strictura* being choked up by them, the Patient fell into a cold Sweat, and frequent fainting; but by laying him in his Bed, and Cordials, he was somewhat relieved, and at last the Physick worked through him, and he grew better; and from that time he was more governable, and admitted of Clisters before Purging, both which he often repeated. We together prosecuted the Cure by internal Medicaments, such as by their vertue restored the Patient to a better Habit of body: our work was the dividing the contracted *Callus*, which made the *Strictura*, which we did by an Instrument made for that purpose, with which without hurting the Intestine we cut through in several places, making the opening so large that the Excrements came away big; and by the injecting of *ol. lumbricorum*, cured the wounds in few days after, and left him at liberty, he not only expelling them well, but also retaining them: Yet within this twelvemonth twice, we have enlarged it, and by the Instrument we designed, it may at any time be helped without hazard of wounding the sound parts near it; but since the last Incision of it, *February* 1673. it hath continued open, and upon a late search with my Finger I could feel nothing of it.

12. Observat. of a Sinuous Ulcer near the *Anus*.

A young Fellow of about thirty six years old, a Servant to a Person of Honour in the Country, was sent to Town; he had been long diseased with a supposed *Fistula in Ano*, it was on the right side near the *Podex*, the Ulcer was sordid and with round callous Lips. I made a search and found it run under the verge of the *Anus*, but not penetrating it. He had been long diseased of the *Kings-Evil*, there being many *Scrophulæ* on both sides of his Neck. I rubb'd the *sordes* and putrid flesh with the Vitriol-stone, and then filled it with *Merc. præcipitat.* with Pledgits of Lint close over it. Then applied some of my caustick Unguent upon a Pledgit round over the callous Lips, and with an *Emplastr. è bolo*, and Bandage bound it up. The next day I took off the Caustick and found it had worked as I designed: I dressed it with Lenients to hasten separation of the Escar. This poor man had heretofore been subject to the *Hæmorrhoids*; from which disease some withered Piles remained hanging upon the verge of the *Anus*, which upon the application of the forementioned Escaroticks and Caustick, began to heat and swell: I presently cut them off with a pair of Scissors, and after they had bled a-while, dressed them with *pulv. Galeni*, and afterwards cicatrized them by the use of the Vitriol-stone and common Epuloticks. During which I cleansed the Ulcer of its *sordes*, and endeavoured to lay a *basis* with *mundif. Paracelf.* &c. for incarnating the Ulcer; but while I was so doing, I observed a great quantity of corrupt Matter flowing again down upon the Ulcer: upon search I found a *Sinus* run towards the *Os sacrum* a great length, and so deep as gave me small hopes of laying it open. The next Dressing I was provided with vulnerary Injections, such as have been set down in Sinuous Ulcers, and dressed him up with Detersives, and prescribed him such Physick as might have regard to his Scrophulous Habit of body. While I was thus treating him, he began to be troubled with a cough, which he had been frequently subject to in the Country, upon which account Pectorals were prescribed, and he was thereby relieved. The cure of the Ulcer not succeeding, I applied a Caustick upon the upper part of the *Sinus* between the *Os sacrum* and the *coccix*, and passed in my Director at the same time, and cut through the Escar into it, designing by this opening to intercept the Humour flowing downward to the Ulcer, but the while he was taken again with a shortness of breath: I let him Bloud, and repeated the use of Lohocks and Cordials, with Spirit of Saffron, *&c.* but he took his Bed and died the third day after. I having leave to open him, desired Doctor

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Walter Needham his assistance in finding out the Cause of his death; we found all the *Glandules* within very Scrophulous, those that lay upon the *Iliack*-Vessels ulcerated, from whence flowed a great quantity of Matter down into the *Pelvis*, thence insinuating it self amongst the Muscles, and so to the place where I had applied my Caustick, and from thence to the Ulcer near the *Anus*: his Lungs were also stuft with *Strumæ*, and the *Viscera* all very bad.

This Observation being indeed strumous, should have been placed in that Treatise; yet notwithstanding I thought it fit to insert it here, that the young Chirurgeons, when they meet with such sordid Ulcers, with extraordinary discharge of Matter, may learn to suspect some extraordinary cause within.

13. Observat. of an ill-conditioned Ulcer *in Ano.*

A Lady of about sixty eight years of age, a lean withered Body subject many years to the *Hæmorrhoids*, which in her declining years grew more painful, and at last afflicted her night and day, and being without hopes of relief from the several applications prescribed her, was perswaded to admit of a Chirurgeon: She sent for me, I heard her roaring before I came into her Chamber. On the lower part of the verge of the *Anus*, next the *Perinæum*, was a Swelling as big as a Phesants egg, it seemed to be the inflation of the rugous coat, but was hard and of a livid colour; but that which she most complained of was within, which I could not come to see nor yet feel: by pressing this downward, I saw a foul Matter, and as I thought a large Ulcer; I caused a Syringe to be fetched, and some *mel ros.* which I mixed with some Chicken-broth and cast it up, and brought away some Excrements, and foul *mucus*: I caused a Fomentation to be made of *fol. verbasci, solani, plantag. an.* M. j. *sem. lini* ℥j. *sem. cydon.* ℥ß. *sem. psillii* ℥ij. *flor. nymph. & ros. rub. an.* P. j. boiled in Wine and Water, by which it was often stuped in a day; also a mucilage with some of the cold Seeds, with *sem. papaver. alb. hyosciam. psillii*, were thrown up to quiet the pain within. Emollient Clysters were also sometimes injected with a Syringe, having a short thick taper-Pipe; lenient Cerots were outwardly applied, made of some of those above-said mucilages *cum sevo cervin. vitulin. vitell. ovor. croco & opio, cum ol. lumbric. & cera alb.* By these Medicaments I somewhat relieved the Patient, and got so much credit with her, as I hoped to have liberty to take off this Tumour by one way or other. Some while after I did apply a Caustick, and removed the upper part of it, as I designed: there came nothing out of it, but it was so levell'd, that I could with the help of a *Spatula* look into the *Anus*, where at some distance I saw little hard Excrescences like *Thymi* standing stiff up; these were they which gave her so continual pain, especially in the easing of nature. There was also a sordid Ulcer between them and the external Tubercle, (to which I had applied the Caustick:) it was not easie for me to extirpate the *Thymi* till I had quite removed this Tumour without; whereupon I presently rubb'd it with a Caustick-stone, and laid it flat, and washt it with the Emollient Decoction; then scarified the Escar, and fill'd it with *Merc. præcipitat.* and dressed it up with Lenients; afterwards I worked it down, and smoothed it with the Vitriol-stone, and cicatrized it with Epuloticks, the Alum-stone, *&c.* This removed I began with those *Thymi*, which if I might have had my own way, should have been treated by the actual Cautery; but I did not mention it, nor did I acquaint them with what I intended to do, but placed her towards the light, and passed a Scoup-like Instrument up into the *Anus*, then having a Caustick-stone fixed in a convenient Instrument, I pressed upon the head of the neareſt *Thymus*, and as the Salts melted, dried them up with an Armed-Probe, and continued the work till I had quite extirpated it; then cast up some of an Emollient Decoction with a little *ol. Hyperic.* by which the pain was asswaged; after

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the Escars cast off, I toucht them with *sp. vitriol.* and afterwards with the Vitriol-stone and cicatrized it, then dressed the sordid Ulcer with Detergents stronger or weaker as it would bear; by which I cleansed it well, and disposed it to Cure by injecting *aq. calcis*, &c. During which I attempted the extirpation of the other *Thymi* with Caustick-stones, and thought I had eradicated them; but some time after they rose again, and in truth did so often, and proved vexatious to the Patient, and troublesome to me: Yet at last after a years attendance they wore off, and the pain ceased. She lived many years afterwards as happily as any person of her age.

9. Observat. of a *Cancer in Ano.*

A Freeholder about fifty four years old, much emaciated, having laboured many years under the *Hæmorrhoids*, and Apostemations within the *Anus*; at last being tormented excessively with pain, and not able to ease nature, he came to *London* in a Litter. He sent for me supposing that he had a *Fistula in Ano*; I looked and saw the verge of the *Anus* callous, then searching with my Finger I felt a large cancerate Ulcer within the *Rectum*, lying under the *Os coccix*, and possessing the parts round with hard Lips; also a large Excrescence, growing upon the lower part of the said Intestine about an inch and a half within, so that there was but a small passage for discharge of Excrements.

This was an inveterate *Cancer*, and not likely to yield any thing to Palliatives: I would gladly have been rid of him, but he would be my Patient, protesting that he could not live unless way were made for the more easie disburthening of nature; to which purpose he implored my speedy help. I perceiving his lamentable condition, and his resolution to have somewhat attempted, desired him to consult some eminent Physicians and Chirurgeons; he assented to it, and made choice of Doctor *Tho. Cox*, and Mr. *Hollyer* Chirurgeon. We met at his Chamber the next day and made a search, and concluded it an inveterate *Cancer* incapable of Cure: but the Patient declared, he came to Town with resolution to be cured or dye, and would have it attempted. We at his importunity complied, and resolved upon the use of the actual Cautery, as being the only way whereby we could hope to extirpate these Excrescences and callous Lips; he was well pleased with our proposals, and desired we would meet again with what expedition might be. The second day after we met, and came provided with an actual Cautery of the fashion of a bolt, with a *Cannula* having a hole cut in it to receive that great Excrescence near the *Sphincter*: a mucilaginous Decoction was also prepared *ex summitat. malvæ, viol. sem. cydon. psillii*, &c. in *aq. hordei.* The Cautery being ready, and a bason of Water with Sponges to cool it; the Patient rose out of his Bed, and placed himself towards the light, leaning upon the side of his Bed without any body to hold him. I anointed the *Cannula* with *unguent. refrigerans Galeni*, and passed it up, placing the opening in the *Cannula* upon the Excrescence; then passed in an actual Cautery glowing hot, and repeated the use of it so often, till the Physician and Mr. *Hollyer* judged the Excrescence and callous Lips consumed; Mr. *Hollyer* putting his Finger in after the passing each Cautery, the *Cannula* being the while taken out often and cooled in Water. The work done, Injections were cast in, and the burnt parts dressed with Lenients; the Patient returned briskly to his Bed, and from that time discharged his Excrements freely, but made little Urine, and that high-coloured: by the use of Emulsions, and the frequent casting in Emollient Clysters and Injections, his Urin voided more easily, and in more quantity. After the separation of the Escars, we dressed the Ulceration with *unguent. tutiæ*, and injected *troch. alb. rhaz.* dissolved with a Mucilage of the greater Cold Seeds, *sem. plantag.*

plantag. papaver. albi, psillii, in aq. sperm. ranar. & germ. querci. These parts disposing to cicatrize, the Patient was seized with a Pleurisie, and not submitting to be let Bloud as was prescribed, his pain increased so very much that he could scarce breath; being afterwards let Bloud about eight ounces, he was relieved: but then a *Diarrhœa* followed, and it being Mid-winter, and the Patient not allowing himself Fire, nor observing good Diet, it terminated in a Dysenterie, and he languished and died.

A TREATISE OF THE KING's-EVILL.

KING'S-EVIL.

OR THE

TREATISE

OF

OF THE KING's-EVILL.

The Fourth Book.

CHAP. I.

Of the Cure of the EVILL by the KING's Touch.

WHAT great difficulty we meet with in the Cure of the KING's-Evil, the daily experience both of Phyſicians and Chirurgeons doth ſhew. I thought it therefore worth my while to ſpend a whole Treatiſe upon the Subject, and very particularly to go through the deſcription of it, informing thereby the young Chirurgeon whatever is requiſite to the Cure, at leaſt as far as it cometh within the compaſs of our Art. But when upon trial he ſhall find the contumaciouſneſs of the Diſeaſe, which frequently deludeth his beſt care and induſtry, he will find reaſon of acknowledging the goodneſs of God; who hath dealt ſo bountifully with this Nation, in giving the Kings of it, at leaſt from *Edward* the Confeſſor downwards, (if not for a longer time) an extraordinary power in the miraculous Cure thereof. This our Chronicles have all along teſtified, and the perſonal experience of many thouſands now living can witneſs for his Majeſty that now reigneth, and his Royal Father and Grandfather. His Majeſty that now is having exerciſed that faculty with wonderful ſucceſs, not only here, but beyond the Seas in *Flanders*, *Holland* and *France* it ſelf. The King of this laſt pretends to a Gift of the ſame kind, and hath often the good hap to be alone mentioned in Chirurgical Books, as the ſole poſſeſſor of it, when the *French* themſelves are the Authors: yet even they when they are a little free, will not ſtick to own the Kings of *England* as partakers with him in that faculty; witneſs the Learned *Tagaultius*, who in his Inſtitutions takes notice of King *Edward's* faculty of doing the ſame Cure, and the continuance of it in his Succeſſors. *Italy* as well as *France* hath made the like acknowledgments in the Book of *Polydore Virgil*, who reciting the Gift given to Saint *Edward* the Confeſſor, doth ſubjoyn theſe words:

words: *Quod quidem Immortale munus quaſi hæreditario jure ad poſteriores Reges manavit: nam Reges Angliæ etiam nunc tactu, ac quibuſdam hymnis, non ſine ceremoniis, priùs recitatis, ſtrumoſos ſanant.* "Which Immortal gift hath been "derived as it were by an hereditary right to the latter Kings; for the Kings "of *England* even now alſo do Cure the *Struma* by Touch, *&c.*

Indeed if Hiſtorians of our Nation be diligently compared with the *French*, we ſhall find that the *French* Kings had this Gift later than ours. *Dupleix* a moſt diligent Writer of that Hiſtory, deriving it no further than *Philip* the firſt, and *Lewis* the groſs; ſaying, that before their times no man had that power: whereas we on the contrary meet with the general acknowledgments of all our Writers of the ſame miraculous Power in Saint *Edward*'s time, which were enough for this Controverſie: and not only ſo, but with ſtrong ſurmiſes, that this Miracle was ancienter; it being notorious in the days of *Malmsburienſis*, who lived not long after his Reign, that it was then diſputed, whether the Cure of the Evil were a peculiar reward of the Kings Holineſs, or rather a Hereditary faculty attending the *Engliſh* Crown. Which Gift, that it was not taken away upon our departure from the Church of *Rome*, we have not only our daily experience to teſtifie, but alſo the confeſſion of Doctor *Harpsfield*, a great Divine of the *Romiſh* perſwaſion; who, after he hath in the Eccleſiaſtical Hiſtory of *England* deſcribed at large the Miracle wrought by the Confeſſor, doth add, *Quam ſtrumoſos ſanandi admirabilem dotem in poſteros ſuos Anglorum Reges, ad noſtra uſque tempora transfudiſſe & perpetuâſſe, meritò creditur.* "Which admirable faculty of Curing the *Struma*, he is juſtly believed to have "tranſmitted to his Poſterity, the Kings of *England*, and to have continued it amongſt them to thoſe times in which he wrote. And when Biſhop *Tooker* would make uſe of this Argument to prove the Truth of our Church, *Smitheus* doth not thereupon go about to deny the Matter of fact; (nay indeed both he and *Cope* acknowledge it) but he rather chuſeth firſt to retort upon him the Proteſtant argument againſt Miracles which they will not allow to be the neceſſary mark of a true Church, becauſe they may alſo be performed by Infidels. But withal he himſelf, who is not willing to let go ſo ſpecious an Argument from his own Church, finds another Solution of the difficulty, attributing it to the great Goodneſs of God, & the great Grace of Saint *Edward*, *Quòd nec in indigna hærede defecerit*, that the Gift did not fail in an unworthy Succeſſor: Such as he calleth Queen *Elizabeth*, and adds, that She did perform that Cure, *non virtute propriâ, ſed virtute ſigni crucis*; not by her own virtue, but by virtue of the Sign of the Croſs, which ſhe made at the time of Healing; as if the Sign of the Croſs, by whomſoever made, were ſufficient to work a Miracle. What would he now ſay were he living, and had ſeen it done by three Generations of Kings without the Sign of the Croſs? But it is not my buſineſs to enter into Divinity-controverſies: all that I pretend to, is firſt, the atteſtation of the Miracles; and ſecondly, a direction for ſuch as have not opportunity of receiving the benefit of that ſtupendious Power. The former of theſe, one would think, ſhould need no other proof than the great concourſe of Strumous perſons to *White-hall*, and the ſucceſs that they find in it. I my ſelf have been a frequent Eye-witneſs of many hundreds of Cures performed by his Majeſties Touch alone, without any aſſiſtance of Chirurgery; & thoſe, many of them, ſuch as had tired out the endeavours of able Chirurgeons before they came thither. It were endleſs to recite what I my ſelf have ſeen, and what I have received acknowledgments of by Letter, not only from the ſeveral parts of this Nation, but alſo from *Ireland*, *Scotland*, *Jerſey* and *Garnſey*. It is needleſs alſo to remember what Miracles of this nature were performed by the very Bloud of his late Majeſty of Bleſſed memory, after whoſe decollation by

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the inhumane Barbarity of the Regicides, the reliques of that were gathered on Chips, and in Hankerchiefs, by the pious Devotes, who could not but think so great a suffering in so honourable and pious a Cause, would be attended by an extraordinary assistance of God, and some more than ordinary Miracle: nor did their Faith deceive them in this point, there being so many hundred that found the benefit of it. If his dead Bloud were accompanied with so much of vertue, what shall we say of his living Image, the Inheritor of his Cause and Kingdom? whom though it hath pleased God to deliver out of those dangers that overwhelmed his Royal Father; yet it was with so long an exercise of afflictions, that though (God be thanked) he be not now like to encrease the catalogue of Martyrs, yet he may well be added to the number of Confessors. This we are sure, the Miracle is not ceased.

But since matter of Fact it self is, in such difficult cases as these, liable to exception; I shall take notice of the Evasions, that obstinate and incredulous Men have used to avoid so great a notoriety of Experience. For since it cannot be denied that many go away cured, some will impute it only to the Journey they take, and the change of Air; others to the effects of Imagination; and others to the wearing of Gold.

The first of these is easily confuted by the hundreds of instances that are to be given of Inhabitants of this City, who certainly could meet with little change of Air, or indeed of exercise, in a Journey to *White-hall*. The second is as readily taken off by the Examples of Infants, who have been frequently healed, though they have not been old enough to imagine any thing of the Majesty, or other secret rays of Divinity, that do attend Kings, or do any other act that way to contribute to the Cure. The third hath more of colour in it, because many that have been touched, have upon loss of their Gold felt returns of their Malady, which upon recovery of that have vanished. But in this case also we have many Evidences of the contrary.

For his Majestie's Royal Father in his great extremity of Poverty had not Gold to bestow, but instead of it gave Silver, and sometimes nothing, yet in all those cases did cure; and those that were cured by his Bloud wore no Gold.

Now whereas upon the loss of the Gold some have found damage; I would know, whether any of them were relieved by the wearing any other Gold than what the King gave them. This is certain, that many that lost their Gold continued sound; and whereas others did not, it may rather be imputed to secret Providence, which would give the Persons concerned that obligation of being mindful of their Benefactor.

But since the infidelity of many in this fantastical Age, and the want of opportunity of others, doth deprive them of this ease and short remedy; and, since it is not necessary that a Disease, which is cured by Miracle, should be remediable by no rules of Art; I think it will not be amiss, if I do here give an account of what Nature and Art have supplied towards the relief of Mankind, in one of the most obstinate Diseases that I know: in the doing of which, though I think I shall say as much as those have said that have preceded me in this Employment, (it may be something more;) yet I must needs profess that what I write, will do little more than show the weakness of our ability, when compared with his Majestie's, who cureth more in any one year, than all the Chirurgeons of *London* have done in an age. However that this Attempt may not seem to want precedent, give me leave to tell you, that it is no more than the *French* Kings Chirurgeons have done before me, or than old Mr. *Clow's* did in Queen *Elizabeth's* days, and all other general Writers in Chirurgery have done more or less. Withal, as feeble as our Art is, this

Treatise

Treatiſe will ſhew you that it is not altogether ineffectual; and though the difficulty of Cure will ſufficiently appear, yet the poſſibility will alſo be made out in many remarkable inſtances.

Chap. II.

Of the Definition of the Diſeaſe, and its Cauſes.

THE Latines call this Diſeaſe *Struma* and *Scrophula*, we the *Kings-Evil*. *Galen* defines it thus, *Struma caro eſt ſicca quæ ægrè ſolvitur: Paulus* thus, *Strumæ ſunt Glandulæ induratæ:* Ætius, *Strumæ ſunt carnes ſubcandidæ facilè augeſcentes, in membrana contentæ, & in ſumma glandula induratæ, quæ in collo & ſub inguinibus oriuntur. Strumæ* are a hard Glandulous fleſh, ſomewhat white, contained in a *cyſtis, &c.* But none of theſe Definitions do ſeem to me ſufficiently to expreſs the Diſeaſe which we in *England* call the *Kings-Evil*. For I appeal to the practitioners of this Nation, Phyſicians and Chirurgeons, deſiring them to ſay, whether there be not many Tumours and Ulcers commonly judged to be the *Evil*, which are contained in no *cyſtis* at all; neither do they concrete into a Glandule. I inſtance in the thick upper Lips chopt, divers Tumours by congeſtion in the muſculous parts of the Body, others in the Bones, *&c.* ſo that either we muſt exclude all theſe from the King's Touch, or alter our Definition: yet I do confeſs withal that the ſpecifick Difference, whereby this Tumour is diſtinguiſhed from divers others, is ſo hard to find out, that it will be difficult to put a new Definition in the room of thoſe which I now reject. I ſhall endeavour to fix upon a peculiar Acidity in the *ſerum ſanguinis* for my ſpecifick Difference; and ſhall deſcribe the *Kings-Evil* to be, *a Tumour ariſing from a peculiar Acidity of the* ſerum *of the Bloud, which whenſoever it lights upon Glandule, Muſcle or Membrane, it coagulates and hardens; when it mixeth with Marrow alway diſſolves it, and rotteth the Bone.*

The Author's Deſcription.

If this acid Humour be ſimple, the Diſeaſe is a ſimple *Struma*; if joyned with a malignity, or any other Humour, it makes a mixt Tumour, as *Struma maligna, Phlegmonodes, Schirrhodes, Oedematodes, &c.*

Now by a Coagulation I mean ſomething diſtinct from Concretion, which is incident to all other Humours and Tumours, and to the *ſerum* it ſelf upon many other cauſes. The whole Bloud being fibrous may admit of many concretions and thicknings; but they differ from this Coagulation as much as the boiling of Milk up to a thickneſs, or their thickning it with Flower, *&c.* differs from making a curd with Rennet. I ſhall the rather aſſume this inſtance of Milk becauſe of the near kindred between it and Bloud, & alſo for the near reſemblance that many Strumous Tumours have with the curd of that. It is very common to ſee the leſſer Glandules of the neck, which of late have obtained the name of Conglobate, to grow large, and fill with a white curd ſo exactly like that of Milk that it is hard to diſtinguiſh them. When they differ from this, it is from ſome other mixture in the Bloud which makes ſome other alteration; which may be very various, whether in the nature of the coagulating Ferment, or of the matter coagulated: the former may be an Acidity

of

of this or that ſort, and ſometimes ſo ſharp as to approach near to the acrimony of *aqua fortis*; in which caſes the Patient feels violent corroſions and hideous pains, the Tumour it ſelf being apt to degenerate into a *Cancer*, or may have other mixture with it to make it of a Vitriolique or Aluminous nature: all which Acidities though they agree in the common notion of Coagulating, yet they make Coagulations very unlike each other. The difference alſo may be in the Matter coagulated, the varieties of which being infinite are hard to be recited: only I muſt take notice, that from this latter Cauſe it is that I was forced to put as well the property of Diſſolution as of Coagulation into the deſcription of the Diſeaſe; for though the Acidity be the ſame which cometh into a Bone with that which goeth into the Fleſh-glandule, *&c.* yet the Matter it works upon being different, *viz.* Marrow, (whoſe peculiar nature we do not underſtand, only find it much different from other Juices of the body) it doth there diſſolve and rot it, and with it the fibres of the Bone it ſelf. Let no man wonder at the contrary effects of the ſame Cauſe, who obſerveth the different operations of Fire it ſelf upon wax and clay; where it is viſible that the contrariety of Accidents happens from the Matter, and not the Efficient. The like inſtance may be made in Vinegar, which when it is mixed with Milk, *&c.* it coagulates it into a curd; if put upon an Egg, it not only diſſolves the Shell, but alſo attenuates the White contained in it into a limpid water; which White we notwithſtanding obſerve to be a body much apter to concrete and grow thick than Milk it ſelf. The ſimilitude will hold good of our Strumous Acidity, which when it lights upon the *Serum* of the Bloud coagulates it, and when it enters into Marrow, though that be in a nearer diſpoſition to Hardneſs than the *Serum*, yet the mixture of this Acidity is ſo far from promoting that Hardneſs that it rather diſſolves the conſiſtency it already hath.

The immediate Cauſe of the *Kings-Evil* is delivered already, *viz.* the Acidity of the *Serum*: but the remote Cauſes, *viz.* the cauſes of this Acidity (to which the *Strumæ* owe their original) are ſomewhat hard to be enumerated. The heads to which they be referred are theſe, Air, Diet, Exerciſe, natural Complexion, hereditary Affections, *&c.* Cauſes.

Thoſe who are born of Strumous Parents are uſually ſubject to theſe Diſeaſes, and derive it from them; ſo they will from a Nurſe ſo diſeaſed whoſe Milk they ſuckt.

Thoſe whoſe temper of Bloud is acid and the *Serum* apt to coagulate, are very obnoxious: ſo are Rickety children, and indeed in all children the heat being little for concoction, the *Serum* is apt to coagulate.

Thoſe that live in an Air exceſſively thin and ſharp, or very thick and foggy, are both liable to the ſame Diſeaſe. Diet of ſalt, ſowre and ſlimy meats are cauſes of this Diſeaſe, of which more elſewhere.

Want of Exerciſe is a great cauſe of the Bloud's growing acid and ſlimy: external Accidents are often the occaſional cauſe of the *Kings-Evil*, but they always ſuppoſe a prediſpoſition of the Body to it; in which caſe we often ſee a blow, compreſſion, bruiſe, *&c.* to produce it. So alſo by a wrench of the hip, knee, anckle, or other joynt, we find crude Tumours to ariſe which are ſoon followed by viſible Symptoms of the *Kings-Evil*, *viz.* either glandulous Tumours in the Neck, *&c.* or Tumours of the Bones themſelves, which ariſing in the body of them make the *Spina ventoſa*; of which elſewhere. I ſhall give you one remarkable inſtance of a Cook's ſervant in the *Old Baily*, who ſleeping one Summers night upon a fourm, his head ſlipping off the one ſide of his Neck preſſed upon the end of it: when he wakened his Neck was full of *Strumæ* on both ſides, ſome as big as Walnuts, others leſs; they were

of different figures, and distinct from one another. He was presently let bloud and purged, all else was done that expert Physicians and Chirurgeons thought fit to relieve him; but the *Strumæ* continued and after a few days apostemated and mattered, and became virulent Ulcers: he died tabid within half a year. A streight stay, as some Women and Children wear them, hath too often the same effect: pain in the Breast makes them under the Arms, and in ill Habits of body; a sore Leg hath often caused as much in the Groines.

Chap. III.

The History of the Disease with the Diagnosticks and Prognosticks.

Parts affected.

Nerves and Brain.

THE *Kings-Evils* is already described in short; but that will not serve the uses of a young Practitioner unless he may have the History of it more fully delivered, which cannot be well done unless we give an account of the Parts themselves which are concerned in it. Now the Parts usually affected are either Glandules, Muscles, *Viscera*, Membranes, Tendons or Bones. I do not remember ever to have seen the Nerves or Brain affected immediately with any Humour of this kind: or if they have, the Juices of those Parts are rather dissolved, and the Fibres corroded by this Acidity after the likeness of Marrow and Bones, then coagulated into a Tumour; which Corrosion when it happens, the Disease gets another name, and being indeed mortal needs not be insisted upon in this Treatise, it admitting of no other doctrine but that of a Prognostick.

Observat.

So a young Lady having overgrown Tonsils, which were judged Strumous, was cured by me by Extirpation, as you may see in the *chap. of Tonsils:* but she some years after labouring under great pains of her Head, and being upon the way coming up to *London* for Cure, died suddenly; her Head being opened, her Brain was found corroded, and much wasted with great putrefaction, the inner Table of the Skull carious.

Veins and Arteries.

The Veins and Arteries do indeed dilate themselves in all congestions of Matter, whether natural or preternatural; but have not any particular Affection in the *Strumæ* distinct from what they have in other cases.

Glandules.

Glandules are a very notorious seat of this Distemper, insomuch that Authors generally have confined it to them as its subject. Here we have a great deal to say, *viz.* that this Part is the most commonly affected when-ever the Patient is Strumous; and if the outward and more visible Glands remain whole, yet generally speaking the inward ones, those especially of the Mesentery, are obstructed and swell'd. Of these I have seen divers examples, especially in Children, and have passed my Judgment that they have been Strumous, when the outer Signs could not so far justifie my conjecture as to make others of my mind: yet when the Patient hath been dead, the truth hath appeared upon dissection. In one of this sort Dr. *Walter Needham* hath lately been my witness. Nay whenever the outward Glands do appear swell'd, you may safely conclude the Mesentericks to be so too, they being usually the first Part that is attacqued by this Malady. Nor is the Mesentery alone, but

Mesentery.

all

all the conglobated Glandules partake with it; which word *Sylvius* hath appropriated to the reductive Glands that serve the Lymphæducts. These are frequently liable to this Distemper, their offices being a percolation of the *Serum*; therefore whensoever that is amiss, these must needs suffer. This is outwardly visible in the Neck, on the sides of the *musculus mastoideus* quite down to the Clavicle, whence they pass into the *Thorax* down a-long the Spine, and about the Lungs; which themselves also do frequently abound with Strumous coagulations. *Laurentius* adds the *Bronchocele* as a *species* of this Disease.

Conglobate.

Neck.

It is as easie to be seen in the Groin, *Axillæ*, &c. in both which places they do often appear; but no-where more commonly and frequently than in the Neck, of which every day sheweth examples. Nor are the conglomerate Glandules free of the like malady, under which name *Sylvius* contains all the excretory ones, which I do reckon to be the Salivals bigger and less, the Tonsils, the *Glandulæ Lachrymales*, the *Thymus*, the *Pancreas*, the *Mammæ*, the Testicles, Prostates, *&c.*

Groines. *Axillæ* Conglomerate more seldom.

These are sometimes affected together with the Conglobates, sometimes separably. Many instances may be given thereof, in some we have found all the conglobate Glandules of the Neck swell'd, and many of them to press hard upon and between the parts of the Salivals; yet they remained found.

Salivals.

The like hath been seen concerning the *Pancreas* and *Thymus*, which have been both surrounded with *Strumæ*, yet themselves remained untouched; but very often the Conglomerates are affected by themselves, of which we have a great example in the *Ranula*, it being but the Tumour of the *Glandula salivalis inferior*, which in a man lieth immediately under the sides of the Tongue. The *Parotis* also, which is the external Salival, is very often preternaturally affected; and in the *Pancreas* the learned Dr. *Walter Needham* saith, he hath seen a Strumous Tumour suppurated, which held a pint of matter when the other Glands of the Mesentery remained sound.

Ranula.

Breasts.

The Breasts are evidently obnoxious to it, as common practice testifies. In a late private Healing I presented a young Woman with one in the right Breast, and 3 near that lying between the 2 Breasts, as large as Pheasants eggs.

Testicles and Prostates.

The Testicles and Prostates may be liable, but I cannot instance in them; and it may be that we do the less acknowledge their being affected with this Disease, because we are apt in all these cases to suspect another distemper.

Tonsils.

The over-grown Tonsils are so frequently Strumous, that they need not be insisted on.

The *Glandulæ Lachrymales* are often infected, and do according to the variety of their disorders produce several sorts of Tumours about the eye; the most usual of which is a *Lippitudo*, an affection of the ends of the Lachrymal Vessels, which being derived from them do terminate near the *cilia*: so also the *Hordeoli*, &c. nay it is not rare to see the whole ball of the Eye thrust out by the Tumour of these Glandules.

Ophthalmia, *Fistula Lachrymalis.*

Ophthalmia it self is often a consequent of the Disease; so is also the *Fistula Lachrymalis* which often oweth its original to this cause.

Adventitious Glands, Face, Legs, Arms, Skin, Muscles, Membranes.

Besides all these Glandules which are naturally born with us, there are many more which do arise upon the occasion of this Disease in the several interstices of the Muscles, as I have seen in both the arms of one person now under my Cure near the *musculus biceps*. The like happens to others in the Legs and Feet, also the very Fingers and Toes.

In a Child of six years of age I saw them scattering all over the Body, as in the balls of the Cheeks, and upon that part of the *Os zygoma* neerest the

external *canthus* of the Eye, higher than the *parotis* reacheth: but whether that were part of the *parotis* or not, the others were certainly adventitious which appeared upon the ſides, back, breaſt, belly, ſhoulders, arms, and thighs, ſcattering up and down, ſome ſuperficial in the skin, others deep.

Viſcera. The *Viſcera* are often found with great *Strumæ* growing in them, or from them. Nor are we to wonder at it if *Malpighius*'s doctrine be true, who ſuppoſeth moſt of the *Viſcera* to be made up of Glandules. In them we frequently find Strumous Swellings as in the Liver, Lungs, Spleen, and ſometimes appendants to them. Dr. *Walter Needham* declared in one of his late Lectures of Anatomy at our Hall, that he ſaw a Strumous Swelling hang at the cone of the Heart that weighed two ounces.

The Tendons are ſometimes involved with a great gumminеſs and collection of Strumous matter, eſpecially the fingers, hands, feet and toes; yea upon the *muſculus maſtoïdeus* it ſelf we find them very diſtinguiſhable from glandulous Tumours, and hard to be managed. Elbows, knees, anckles are very remarkable Seats of this *ſpecies* of the Diſeaſe.

Bones carious from within. Bones are as frequently affected as any part of the Body, Glandules only excepted; but there the manner of the Tumour differs; for though the Bone ſwell, and the outward ſhell thereof appear hard, yet the inward Juices are all putrid and rotten. This ſort of Tumour is ſometimes called *Spina ventoſa*, how properly let others judge; but it is certain that not only the Bones of the fingers, *carpus*, *metacarpus*, *tarſus*, *metatarſus*, and Toes, are liable to this Evil, but alſo the Skull it ſelf and the Jaw-bones, and all the other Bones of the body; the venomous nature of which will be ſeen by thoſe who upon opening ſome of theſe Tumours have found the Bone when laid bare at the firſt appearance ſound, but when pierced into to be in the heart wholly rotten.

Bones outwardly carious. Bones are likewiſe affected on the outſide by any Strumous Tumour that toucheth them, whether Membrane or Tendon, &c. which we often experience in opening of them when they lie near ſuch parts; for when we do, we moſt commonly find the Bone it ſelf bare, if not carious. There is a mixed caſe of Membranes and Bones which frequently is found Strumous, I mean the *Ozæna*, which requires your utmoſt diligence; the Bones and Cartilages there ſoon rotting, leave a blemiſh to the ſcandal of the Patient.

Differences. As to the Differences of the *Strumæ*, they are ſometimes more mild without Inflammation or pain, and moderately hard, but by acceſs of heat inflame and ſuppurate; as well thoſe of a round figure, which is eſteemed the beſt and mildeſt ſort, as thoſe of any other. Some of the mildeſt and biggeſt *Strumæ* I have ſeen perfectly ſuppurated without change of colour in the skin, but after ſome days they again became hard as before. When they ſuppurate with Inflammation then there is a mixture of Bloud with them, and they are call'd *Phlegmonoïdes*; others are indurated and after a while Schirrous, yet ſometime by a putrid heat do ferment, and grow painful and ſoft in the upper part; which ſoftneſs hath by ſome been miſtaken for a Suppuration, but at their Opening they only gleet, and at length too frequently ſhew their malign quality by terminating in one of the *ſpecies* of a *Cancer*, as I have ſhewed you in the *Chapter of Cancers*.

Other Differences. Other Differences may be taken notice of, *viz.* that ſome are primigenial as when the Diſeaſe is original, and ſecundary when they ſucceed ſome other Diſeaſe, as particularly a Fever, which often terminates in a congeſtion of matter. It alſo ſometimes happens after Catarrhs & other Diſtempers. There are likewiſe ſome by ſudden Fluxion, others by long Congeſtion. From the place of their ſituation Differences may be taken which every mans eye can ſhew him.

The

The *Steatoma*, *Atheroma* & *Meliceris*, as they are the frequent companions of, so they are often not easily distinguishable from, these Tumours. This makes *Barbett*, a late Author, to say, that *Materia melli, sebo, aut pulti simili, circa articulos, Ganglion, circa colli glandulas, Scrophulam sive Strumam, in brachiis, pedibus, aut capite Tubercula, & si ex Lue venerea Tophum constituit.* By which it appears that he makes them not to be distinct *Species* of themselves, but the accidents of other Tumours. *Steatoma, &c.*

Signs of these Tumours will be more difficultly given, by reason of the various shapes in which they do appear.

When it affects a conglobate Glandule the Tumour is usually round, moderately hard, and moveable without pain. Those of an oval figure which are hard, and accompanied with pain without Inflammation, are of an ill quality; and if they grow unequal they threaten a *Cancer*. When a Conglomerate is the seat of it, it usually observes the shape of that Glandule, especially if the whole Gland be diseased: but it is not unfrequent to see those Glandules (which are indeed but compositions of lesser Glandules clustered up together like a bunch of grapes) particularly affected; so that some of those lesser *Glandulæ*, or Kernels, shall swell into oval, round, or flat, or other figures, leaving the remainder sound enough; as indeed having no other communication with them, but only by that small *pedunculus* which tieth them to, and dischargeth them by, the common great duct of the Glandule. Diagnostick.

In a Muscle the shape is uncertain, and alway distinct from the Muscle; the Tumour harder or softer as it happeneth: but those of a round figure are the best conditioned ones.

The lip when infected is commonly thick and chopt.

Bones when Strumous do swell, grow hard and big, but if you open them, they are found inwardly rotten, as hath already been hinted.

These which we present to his Majesty are chiefly such as have this sort of Tumour about the *musculus mastoïdes*, or Neck, with what-ever other circumstances they are accompanied; nor are we difficult in admitting the thick-chapped upper Lips and Eyes affected with a *Lippitudo:* in other cases we give our Judgment more warily.

In the Prognostick you are to consider, whether the Tumours be many or few, grown together in clusters or more distinct, great or small, deep or shallow, moveable or immoveable, benign or malign, soft or hard: the place of them, whether near great Vessels, Joynts, Nerves, Tendons or Bones, and the Habit of body, is to be considered; also the Age of the Patient. Prognostick.

If the Habit of body be tolerable, the Patient young, the *Strumæ* recent and but moderately hard, the Resolution or Suppuration of them is feizable: but if they have been of long continuance, are hard and lie deep amongst the Vessels, the work is difficult; yet the Cure of both is very often furthered by accidental Ferments, which will resolve them to a wonder, and as often suppurate them. In case of the King's Touch the Resolution doth often happen where our endeavours have signified nothing; yea the very *Gumata*, insomuch that I am cautious of predicting concerning them (though they appear never so bad) till 14 days be over. If the *Struma* be moveable, and free from remarkable Vessels, the extirpation is not difficult; but if the Habit of body be bad, the *Strumæ* immoveable, they are not to be medled with; if that they be moveable, yet lie deep amongst the great Vessels, the extirpation is dangerous: besides, in the best Habits of body new *Strumæ* are apt to arise while you are extirpating the old ones.

If the *Strumæ* have been long ulcerated, and are become sinuous and virulent, and if they lie near one another, they do often find a communication to *Strumæ* ulcerated.

one

one another, though to your Eye they may ſeem diſtinct: in which caſe the Lips grow callous and the Ulcers corroſive, yea frequently ſordid, and the Cure not to be hoped as long as any one *cyſtis* remains, or indeed the Veſſels that feed them; and if they run under the great Veſſels what will you do? but if the Ulcerations be ſimple the Cure is accordingly eaſie.

Thoſe that are ſeized of *Strumæ* in the Neck after 40 years of age ſeldom recover, thoſe generally labouring under great obſtructions, whence ſpring Scorbutical affections, Jaundice, fainting, vomiting, loſs of appetite, ſometimes Dropſie; otherwhile a Cough, in which caſe they die tabid.

Caries within the Bone.

If Strumous Tumours or *Gumata* ariſe from *caries* in the Bones of the fingers or hands, it will require your care; if in the foot or toes, it will be more difficult; if in the *Os calcis*, Joynt of the ancle, or *Aſtragalus*, or in the Kneebones, or *Iſchia*, &c. where you cannot lay open, or indeed where you cannot judge of the rottenneſs, the caſe is deplorable, the work is long; and the very diſcharge of matter exhauſts the ſpirits of the Patients, ſo that they generally die of a *Maraſmus*: but if by ſtrength of Body and help of Medicines the Ulcers do digeſt, ſometimes the rotten Bones do moulder and caſt forth, and by vertue of a *callus* within, the member is ſupplied; as in ſome caſes you may ſee, but the caſe always portendeth danger.

Caries from without.

If Strumous Tumours or *Gumata* do outwardly foul the Bones, if the Habit of body be tolerably good and the Ulcers well handled, they may recover; but if the Habit of body be bad, new Ulcers ariſe, ſo that the work is long and difficult.

Chap. IV.

Of the Method of Cure.

In the Cure of the *Kings-Evil* you muſt conſider the Habit of body, ſtrength and age of the Patient, the affection of the *Viſcera*, and particularly whether the *Struma* be ſimple or complicated.

If all things appear benign according to the Diagnoſtick or Prognoſtick before delivered, you may hope well; if otherwiſe, then you are to defend your ſelf with a prediction, and work warily.

In order to the Cure three Intentions are required. The firſt conſiſts in the regiment of Diet and the other non-naturals; the ſecond, in Pharmacy or internal Preſcriptions; the third, in the application of Externals either to diſcuſs, ſuppurate or extirpate the Glands.

In the firſt concerning a general regiment of Diet, *&c.* there ought to be ſpecial regard had of the Conſtitution of the Patient whether he be hot or cold, dry or moiſt, old or young, tough or tender and waſhy. If the Body be cold and moiſt, we generally ſuppoſe a *crapula* preceded, and crudity to abound; in which caſe the ready road is by Faſting from meat and drink, which was the method of the Ancients, or at leaſt great moderation: their Diet ought to be moderately heating and drying, Mutton, Kid, Rabbet, Pullet, Chicken, Partridge, Pheaſant, Cock, *&c.* and theſe roaſted; avoiding all meats which yield a groſs nouriſhment, as water-foul, fiſh and herbage:

their

their Bread ought to be of wheat well baked, and their Drink medicated ale or beer; wine is also allowed and water utterly forbidden.

In hot and dry Bodies which are tending to a Hectick, we allow a more humecting Diet, their meat boiled with Lettuce, Spinage, Purslane, Wood-sorrel, *&c.* To some of these we dare scarce permit the eating of any Flesh, but rather a Milk-diet or Asses milk; but where Milk doth not agree we prescribe them medicated Broths.

Air is a great help in our Cure: in the cold ones it ought to be moderately heating and attenuating, in the hot ones cooling; in neither over-much piercing, as that of *Hampsted* is, in which sort of Air there is always something esurine and acid; but rather mild and gentle, as that of *Kingsington*, upon which supposition of gentleness, the farther removed from the smoke of the City the better. I shall mention one Observation which I leave to your Judgment, whether it ought to be attributed to the smoke or Northern blasts from *High-Gate*. It was in a Patient of Dr. *Tho. Cox* and mine, diseased and wasted even to skin and bone: we removed him to *Knights-bridge*, where after in some weeks he had a little recruited his strength, and was eased of his Cough, which had been very grievous to him; we removed him (for more conveniency of curing an Ulcer with *caries* of the *cranium* which he had some time laboured under) to a Lodging near *Kings-Gate* in *Holborn*, which stood backwards and Airy enough, the windows opening to the Fields. Upon lying there but two nights he relapsed to such a degree, that if I had not removed him the third day I verily believe he could not have survived the fourth; but at *Knights-bridge* he again recovered, and some weeks after went well away to his Parents in the Country, and hath continued healthful since.

Exercise of body ought to be enjoyned, it being necessary to waste superfluites; Sleeping in the day is forbidden, unless it be in case of pain to which it is an Anodyne; Passions of the mind ought also to be moderated.

The second Intention consisting in Pharmacy, must be qualified according to the Habit of body. If it be cold and flegmatick, abounding with gross viscous Humours, your Prescriptions ought to be heating and attenuating: in Plethorique bodies you must purge with the stronger Catharthicks, or repeat the milder often, otherwise the Disease will be apt to increase under your hand. The Purgatives are, *species hieræ cum agaric. diaturb. pul. cornachini, pil. cochiæ, è duobus, rudii, hermodact. alæphang. imperial, è succino, trochis, alhandal, diagrid. resinæ jalapii, & merc. dulcis*, and all those Medicaments prescribed in *Lues venerea*. ℞ *pil. rudii* ℈j. *calomel.* gr. 15. *ol. sassafras* gut. iij. *Misce & fiant pilulæ* 5. *auratæ*; *sumat summo mane*. Or, ℞ *senæ* ʒß. *agarici trochiscati* ʒj. *hermodact.* ℈iv. *sem. carthami* ʒiij. *salis tartari* ʒß. *ligni sassafras* ℈ij. *fiat infus. in aq. flor. genistæ, scrophular. an.* ʒvj. *colaturæ, adde syr. de spina cervina* ʒx. *vel q. s.* Or, ℞ *turbith gummos. hermodactyl. an.* ʒij. *rad. scrophulariæ utriusque, an.* ʒj. *rad. angelicæ* ʒiij. *fol. senæ* ʒß. *diagrid.* ʒij. *fiat pulv. & cum syr. ex infus. ros. pallidar. fiat Electuar. dos.* ʒj. *ad* ʒij. *addendo calomel.* gr. x. now and then. Or, ℞ *sarsaparill. elect.* ʒij. *rad. chinæ, cort. lig. vitæ, an.* ʒß. *sassafras, santali, citri, an.* ʒiij. *rad. jalapii, senæ, an.* ʒiiß. *hermodact. turpeti, an.* ʒiß. *pulveriz. omnia, & fiat Electuar. cum s. q. mellis despumati.* Or, ℞ *rad. aristoloch. rot. raphani, spatulæ fœtidæ, an.* ʒj. *pimpinellæ, rutæ, pilosellæ, an.* ʒij. *rad. scrophular. filipend. an.* ʒß. *sem. anisi* ʒij. *zinziberis* ʒj. *turbith gummosi, fol. senæ, an.* ʒiij. *sacchar. alb.* ʒiv. *fiat pulv.* of which the Patient may take daily a spoonful in White-wine. Or he may purge with this Wine, ℞ *summitat. marjoranæ, origani, calaminthæ, tamarisci, an.* Mj. *flor. ros. damas. salviæ, betonic. anthos.*

anthoſ. ſtæchad. centaur. min. veronic. utriuſque, an. Mß. *ſem. papaver. alb.* ℥iij. *ſem. fenic. dul. nigellæ, Romi, cardomomi, cubebar. an.* ℥j. *rad. ireos florent. calam. aromat. pyrethri. an.* ʒß. *cortic. aurantii ſiccat.* ℥iij. *cort. lig. ſaſſafras, cort. Winteran. an.* ℥ij. *hermodactyll. turbith gummoſi, an.* ʒij. *hellebori nigri* ʒiij. *macerentur in vino Hiſpan.* ℔iv. *per quatriduum ; doſ. cochl.* iij. *mane & horâ ſomni.* ℞ *ſpec. hieræ picræ ſimpl.* ʒiß. *cort. Winteran. contuſ.* ʒß. *maneat ſpatio trium dierum in frigido in aq. lumbric.* ℔ß. *aq. mirabilis & bryoniæ compoſit. an.* ℔j *ſæpiùs agitentur, extrahatur Tinctura clara.*

℞ *pul. ſancti* ℥ij. *ſacchar. opt. in aq. mirabili diſſoluti* ʒj. *ſpir. cinamomi,* gut. ij. *fiat tabella ad pondus* ℥j. *capiat* iij. *pro doſ.*

Alteratives are alſo uſefully taken thoſe days they do not purge, of which ſort this is very much commended. ℞ *cinr. ſpongiæ, pilæ,* or *paleæ, marinæ, oſſis ſæpiæ, piperis longi nigri, cardomomi, zinziberis, ſalis gemmæ, pyrethri, nuc. cupreſſi, gallar. an.* ʒij. *fiat pulvis :* he is to chew ſome of it daily, and ſwallow it down as it were inſenſibly. Or, ℞ *rad. gladioli condit.* ʒj. *ciner. viperar.* ℥vj. *ciner. ſpong.* ʒß. *ſpec. de gemmis* ℥j. *diarrhod. abbatis* ℥ij. *cum ſyr. de betonica fiat Elect. de quo capiat ad q. caſtaneæ tribus horis medicin.* any hour in the day faſting. Or, ℞ *rad. helen. gladioli, ireos, an.* ʒj. *conſ. flor. anthoſ. betonic. an.* ℥vj. *theriac. Venetæ* ℥iij. *ſpec. aromat. roſati, diagalangæ, an.* ℥j. *cum ſyr. de cort. citri, fiat opiata ; ſumat q.* ℥iij. *horâ ſomni.* After any of theſe may be drank a draught of the following Decoction ; ℞ *ſarſaparillæ* ʒiij. *ligni guajaci* ʒiß. *ſaſſafras* ℥vj. *rad. filipendulæ, ſcrophulariæ maj. an.* ʒj. *fol. agrimoniæ, herb. Roberti, veronicæ utriuſque, an.* Mß. *flor. betonic. anthoſ. an.* P. j. *liquiritiæ* ʒij. *ſem. coriand.* ℥vj. *coq. in ſ. q. aq. font. ad* ℔vj. *colaturæ adde vini rhen.* ℔ij. *ſumat* ʒvj. *horis trib. medicinal.* Or, ℞ *rad chinæ* ʒij. *ſarſaparillæ* ʒvj. *ſantal. omnium, an.* ℥iij. *ſaſſafras* ℥x. *infund. in aq. font.* ℔viij. *per horas* 12. *deinde, adjectis fol. agrimon.* Mij. *fol. veronic.* Miij. *ſcabioſæ* Mj. *ſem. fenic. dul. carvi, an.* ℥iij. *uvar. paſſular. enucleat.* ℥vj. *coq. ad conſumpt. tertiæ partis ; fiat colat. pro potu ordinario.* ℞ *rad. ſarſaparillæ* ʒß. *rad. chinæ* ℥j. *ligni ſaſſafras* ℥j. *rad. ſcrophular. filipend. an.* ʒj. *ophyogloſ. alchimillæ, fol. agrimon. veronicæ utriuſque, an.* Mj. *milleped.* n°. 200. *liquirit.* ʒijß. *coq. in aq. font.* ℔x. *ad* ℔vj. *ſumat ad* ℥iv. *tribus horis medicin.* The Decoction of *lig. vitæ* in flegmatick Bodies alone frequently cures the ſimple *Strumæ.* ℞ *ſarſaparillæ inciſ. & contuſ.* ʒiij. *rad. chinæ* ℥j. *lig. lentiſ.* ℥ij. *raſ. ebor.* ℥j. *millep. recent.* n°. 1000. *uvar. paſſular. enucleat.* ℥viij. *rad. ruſci* ℥iv. M. *fiat ſacculus pro congiis tribus cereviſiæ non lupulat. pro potu ordinario.* In ſome caſes *aq. calcis* hath been of good uſe, thus : ℞ *aq. calcis* ℔vj. *ſarſaparillæ inciſ. & contuſ.* ℥ij. *chinæ* ℥j. *ſaſſafras* ℥vj. *uvar. paſſul. enucleat.* ℥iv. *glycyrrhizæ* ℥j. *fiat infuſ. & coletur pro uſu ; bibat* ℥iv. *tribus horis medic.* in delicate Bodies you may leave out the Saſſafras and make Emulſions of it with ſome of the 4 cold Seeds, Almonds, *&c.* ſweeten it with fine Sugar. Chalybeats are frequently of uſe in theſe Diſeaſes, and may be thus preſcribed. ℞ *margaritæ pul.* ℥vj. *ocul. cancror.* ʒj. *ceruſ. antimon.* ʒß. *ſalis martis* ℥iij. *ſacch. cand. alb.* ℥iv. *fol. Auri* n°. vj. M. *fiat pul.* Or, ℞ *chalybis cum ſulphur. præparat. rhab. opt. an.* ℥vj. *cort. Winteran.* ℥ij *ſal. abſinth.* ℥j. *ſacchar. opt.* ℥iv. *fiat pul.* the Doſe of either may be a Dram. If the Patient be of a hot and dry Conſtitution the caſe is more difficult, becauſe the Medicaments eminent in the Cure of this Diſeaſe are generally ſuch as are like to injure the Body in one of thoſe qualities, being moſt of them ſuch as either heat, or at leaſt dry it ; many of them do both, *viz. Sarſa* and the Woods as alſo the *cineres Spongiæ, ſal Gemmæ,* and all the *Species.* In this caſe the Waters will have their place (though I cannot ſo particularly approve them as others do.) Aſſes milk is of great efficacy in the moſt of theſe, of which I ſhall give you one inſtance in a caſe where my worthy friend Sir *F. P.* was concerned.

A

A young Gentlewoman about 11 years of age, ſhrewdly diſeaſed with *Strumæ* in her Neck, with obſtructions in the Meſentery, ſhe being thereby exceedingly emaciated: Sir *F. Pr.* being ſent for, and ſeeing her ſo diſeaſed with loſs of Appetite, adviſed her to be removed to the freſh Air at *Kingſington*; ſhe was ſo, and there by Aſſes milk recovered her ſtrength, and returned to her friends, well recovered. Where Aſſes milk doth not agree we preſcribe Diſtill'd milk, of which ſort this may ſerve for an example. ℞ *ſarſaparillæ elect. inciſ. & contuſ.* ℔j. *raſ. corn. cervi* ʒvj. *fol. agrimon. veronicæ utriuſque, an.* M. iij. *ſantal. alb. rubri, an.* ʒij. *liquiritiæ Anglic.* ℔j. *limac. horten.* n°. 100. *vermium terreſt.* ℔j. *lactis vaccini recent. cong. ii. diſtillentur in organo commun. S. A. Liquoris diſtillat. ſing.* ℔iij. *adde tabellas oculor. cancror.* ʒij. *ſumat ad quantitatem* ʒiv. *ſingulis doſibus addend. aq. cinam. hordeat.* Cij. To theſe diſeaſed Patients we alſo generally preſcribe Decoctions of *ſarſa, china, ligni lentiſcini, ſantal. albi, raſ.* C.C. *& eboris*, with the more temperate Pectorals and opening Roots; ſo alſo the teſtaceous powders of *oculor. cancror. coralli, margaritæ*, &c. of which this may ſerve for an inſtance. ℞ *chelar. cancror. ceruſ. antimonii, ocul. cancror. an.* ʒiij. *margaritæ, corall. rub. an.* ʒij. *ſacchar. puriſſimi* ʒiv. *fiat pul. de quo capiat ad* ʒj. *ter in die ſuperbibendo hauſtum aq. lactis ſuperſcriptæ.* Or the foreſaid powders may be made into Pills with *balſ. Peruvian. &c. Mer. diaphoret. bezoard. miner. antimon. diaphoret.* are alſo great Specificks in theſe Diſeaſes, Emulſions, Pearl, Juleps, and Opiats are alſo of uſe. Purging in this caſe, if the Body require it, ought to be with Lenitives, *viz. Elect. diacaſſiæ cum manna, diacatholic. diaprun. ſyr. de pomis, purgantis diaſereos, ſyr. de rhab. & de cichoreo cum rhabarbaro*: and to Children the infuſion of Rhubarb is ſufficient. Our moſt experienced Phyſicians have generally purged theſe with *pul. rhab.* with an addition of the *Elect. diaſcord.* or, *ſucc. chermes*, with *Mer. dulcis* where they have been ſubject to *Diarrhœa*, and in other caſes alone, or mixed with the milder Purgatives: for in truth whatſoever Diſeaſe it is complicated with, without ſome preparation of Mercury our hopes are vain; nay in ſome of the moſt deplorable caſes where the Patient hath been extremely emaciated by reaſon of the Acidity in the *ſerum*, I have proceeded higher to ſalivate them, and thereby recovered them, as you may ſee in ſome of the Obſervations of Ulcers with *caries* in the Bones.

The third Intention is performed by the application of Externals, 1. to the Tumours which we endeavour to reſolve or ſuppurate or to extirpate, which latter may be performed either by manual Operation or by Eſcarotick or Cauſtical medicaments; 2. to the Ulcers, which are the effect either of Suppuration or Extirpation. In Tumours we ſhall begin with Emollients and Diſcutients, though I muſt confeſs it is no eaſie work to reſolve theſe Glands, if we conſider two things: firſt, the ſtubbornneſs of the Matter, ſecondly, its being contained within a *cyſtis*; yet in ſoft delicate Bodies the milder ſort of Glands, which are not too much indurated, do frequently reſolve. We ſhall therefore offer to you ſuch as I have ſometimes applied with tolerable good ſucceſs: as ℞ *empl. diachyl. ireat.* ʒij. *gum. galbanum, ammoniac. diſſolut. in aceto, an.* ʒß. *pul. ſem. naſturtii* ʒj. *ſal. gemmæ* ʒij. *ſem. ſinapis & urticæ pul. an.* ʒiij. *axung. anſeris, ol. irini, an.* ʒvj. *ceræ* ʒij. *M. S. A. fiat cerat.* Or, ℞ *rad. bryoniæ, cyclam. raphani, an.* ʒij. *cucumeris ſilveſt. ſpatulæ fœtidæ, an.* ʒj. *coquantur in lixivio communi ad mollitiem: cribraturæ adde ſterc. columbini, caprini, an.* ʒj. *gum. ammoniaci diſſol. in ſp. vini* ʒij. *labdani, ſtyrac. calamitæ, an.* ʒß. *picis naval. q. ſ. fiat cerat.* Or, ℞ *gum. galban. ſulph. vivi, an.* ʒj. *ſalis armoniaci* ʒij. *terebinth. q. ſ. fiat ceratum.* The ſofter *Strumæ* may by theſe or ſome of *Celſus*'s *Malagma* be reſolved, or diſpoſed to Maturation by the acceſs of Heat and ſubtil quality of the Medicaments.

Thoſe which partake of a *Phlegmon* do frequently ſuppurate: the way to further Suppuration is by ſuch-like: ℞ *cepar. capit. allior. in furno coctor.* n°. ij. *mucilag. radic. althææ, lilior. an.* ʒj. *pul. ſem. fœnugræci, lini, an.* ʒß. *fermenti veteris* ʒij. *cari toſti* n°. iv. *limac.* n°. vj. *axungiæ anſeris & porcinæ, an.* ʒiß. *croci* ʒj. M. *fiat cataplaſma.* ℞ *tuſſilag. cum toto* M.ij. *ſem. lini pulver.* ʒvj. *axung. porcinæ q. ſ. fiat cataplaſ. S. A.* Or, ℞ *folior. & rad. althææ, rad. lilior. an.* M.j. *ſem. lini, fœnugræci, an.* ʒj. *far. triticeæ.* ʒiß. *axung. porcinæ & gallinæ, an.* ʒiß. *vitel. ovor.* n°. ij. *croci* ʒj. *fiat cataplaſma.* In order to the ſuppurating of them it is common to pinch them hard: I have ſeen ſome people in the Country thruſt a Thorn into them, and thereby ſtir up Inflammation which ſoon diſpoſeth them to ſuppurate. You muſt endeavour a perfect Concoction; for if you open them while any part of the Gland is hard, it will increaſe and put you upon a neceſſity of eradicating it, or of leaving your Cure imperfect. I could give you many inſtances of Patients that have come to me for Cure after ſuch Treatment. As to the way of opening them when ſuppurated, that by Inciſion makes the leaſt Scar; but if the *Struma* be large, the way by Cauſtick may give you more Opening, and with leſs pain aſſure the Cure: the Matter being diſcharged you may deterge with *mundif. Paracelſ. præcipitat.* and the Vitriol-ſtone, and afterwards incarn and cicatrize, as in crude Abſceſſes hath been ſhewed.

But in the old and hard *Strumæ* we do ſeldom obtain a compleat Suppuration; ſometimes during the application of the moſt ſubtil Diſcutients we raiſe a heat in the Skin, which affecting the *cyſtis* and part of the Gland next under it doth cauſe an imperfect Suppuration: by the continued uſe of the Diſcutients it at length frets its way through in ſmall Apertures, in which caſe if you continue the Applications, they grow bigger and become ſo many painful Ulcers ſpreading one into another, the body of the Gland remaining hard without hopes of Suppuration. But if you dreſs them a day 2 or 3 with a Pledgit of *unguent. baſilic.* you may qualifie the Heat and moderate the Ulceration; and ſo by interchangeably applying the Diſcutient or Lenient, you may happily waſte the whole Gland, if the Patient be treated the while by proper Internals. In ſome of theſe who have come to me out of the Country with *Strumæ* ulcerated about the Chops, I have ſeen the *Strumæ* thruſt forth in a *fungus*; ſo that with my *Spatula* paſſing under them I have thruſt them quite out, and healed the Ulcer in few days: in others where they are incapable of being ſo ſoon thrown out, I cut off the protuberant part, and conſumed the remaining *baſis* with Eſcaroticks.

If the *Struma* be moveable, and free from remarkable Veſſels, the ſpeedieſt way of Cure is by cutting the Skin, and taking them out whole with their *cyſtis:* thoſe which have ſtalks and are pendent, or grow ſmall near the *baſis*, may be tied and cut off; of this ſort we ſee many. The laſt I was conſulted in was as big as the largeſt *Catharine Pear* and of that ſhape, growing on the outſide of the thigh of a Woman: I made a Ligature about the *baſis* of it, and in compliance with the Patient left it on, and deferred the cutting it off till the next day; but when I came I found it rotted off by force of the Ligature and required no Dreſſing, I cut it in pieces and found it a white Glandulous body. In an Infant newly born there appeared one upon the outſide of her little Finger, of the perfect ſhape and colour of an unripe Cherry, partly red and partly pale, with a ſtalk proportionably long: I cut it off with a Knife, it bled with a full ſtream, I ſtopt it by the application of *pul. Galeni cum albumine ovi*; the third day after I took off Dreſſings and ſaw it healed. About ten days after coming thither to make a Fontanel, I ſaw that Cherry lying in a Box in the window: I cut into the ſoft part and diſcharged a bloudy

dy *ſerum*: the other ſide which gave the pale colour to it was a Glandulous fleſh.

In thoſe which are ſo thick in the *baſis* that you cannot make Deligation on them, you may paſs a proportionable big Needle under the roots of them, and cut them off under the Needle.

The common way of taking out all the *ſpecies* of *Strumæ*, *Atheromata*, & *Meliceris*, by Inciſion, is in cutting the Skin the length of the Tumour: in theſe latter you muſt make the Inciſion more warily, leſt you divide the *cyſtis* and the Matter flow forth. After you have ſeparated them round to the *baſis*, it may be ſometimes neceſſary to make a Ligature upon the Veſſels before you cut them off. Thoſe which are of great bulk and have their *baſis* proportionably big, as *Steatomata*, generally called *Wens*, are ſometimes taken out by making a croſs Inciſion, other-while by an oval, one taking off ſo much of the Skin as may be judged ſuperfluous; then ſeparate it, proceed calmly in the Work, for in theſe the Skin commonly adheres ſo cloſe to the *cyſtis*, that it will not part from it without the help of your Knife: having ſeparated it turn it out, and make a Ligature underneath upon the Veſſels, and cut it off; then bring the Lips of the Wound together with 2 or 3 ſtitches, & dreſs it up as you ſee cauſe. Some Empiricks cut them off without more ado, ſcarce making a Ligature on them; but this way being always attended with a flux of Bloud, others chuſe rather to paſs a Seton-needle with a ſtrong Ligature cloſe under the *baſis*, or as near it as may be, and that way make a Ligature ſtrictly about it. Sometimes we make the like Ligature without Inciſion, and are content to eat off the Tumour by ſtreightening it. Thus it falls off without effuſion of Bloud; but hereby there is hazard in mortifying the ſound parts underneath, or of cauſing ſuch diſturbance as prolongeth the Cure: upon which conſideration I do propoſe in great *Steatoma*'s and complicated Tumours, which are incloſed in *cyſtis*'s, rather to cut into the *cyſtis*, and with your hands to pull out that preternatural Body, and leave the *cyſtis* behind. So ſhall you be ſecured from a flux of Bloud, and for the *cyſtis*, you need not doubt but by Digeſtion it will ſeparate and caſt off; the Wound will alſo heal ſmooth by Agglutination afterward, if you cut off the ſuperfluous Skin, and bring the remaining Lips together, as in ſuch Operations is uſual. An Inſtance of this I ſhall give you amongſt the following Obſervations.

The way by Inciſion.

After the ſame manner I uſually treat all thoſe Tubercles in the Eye brows and Face, where the *cyſtis* ſeparates difficultly from the circumjacent parts, or where a great Scar may be unſightly.

Where the *Strumæ* are large or lie deep near conſiderable Veſſels, there, if Extirpation be ſafe, the beſt way will be by cauſtical Medicines & Eſcaroticks. It is a Work requiring more time, yet it is ſure; & indeed is the only way our Patients generally admit of. The very mention of a Knife frighting them from us.

Extirpation by Eſcaroticks.

In preparation to this Work, the Body ought to be frequently purged, and if there be *Plethora* Væneſection may be neceſſary: alſo during the Extirpation they ought to be in an Antiſtrumatical courſe of Phyſick with Alteratives, *&c.* as hath been already preſcribed; otherwiſe new Glands will ariſe whilſt you are eradicating the old ones. Upon which conſideration you are to furniſh your ſelf with ſuch Eſcaroticks as may penetrate deep into the Gland, & do their work with leaſt pain: for theſe Glands have ſmal ſprigs of a Nerve branching through them, which maketh them ſenſible of Pain and ſubject to Fluxion; therefore it is that we endeavour to eradicate them with Corroſives leaſt painful. But ſuch is our misfortune that all Medicaments fit for this Work are extremely painful, the ſtronger Cauſticks are moſt proper to begin with upon condition that they be kept within their bounds: of theſe ſome are made up of Sope-lees boiled to a Stone, but this Medicine will ſpread in ſpight of all our Defenſives;

ſives; ſo will all thoſe made with Arſenick, Sublimate, Vitriol, *&c.* that of *calx viva* boiled up with *lixivium ſaponis* ſpreads the leaſt. The Medicaments proper afterward to eradicate them are either Eſcaroticks, as the Cauſtick-ſtone Mer. ſublimate, Arſenick, *ol. vitrioli.* Auripigment, unſlacked Lime, *&c.* or Cathereticks, *viz.* all the ſorts of Vitriol, *viridis æris, ſquamæ æris, chalcitis miſti ſoris Cinnabar. Alumen, Mer. præcipitat.* and ſo forth. The compoſitions of the Eſcaroticks are *pul. ſine pari ex æqual. part. Merc. ſublimat. Auripigmenti, Calcis vivæ.* A milder than this is that of *Johan. Arden, Trochis de minio vigon.* is a powerful Eſcarotick; it is compounded of *Mer. ſublimat. Minium,* and Leven. In his Book you may find Preſcriptions more eſcarotick, of which this is one. ℞ *merc. ſublimat.* ʒß. *arſenici pul.* ʒiß. *ceruſ. ſucci amyli an.* ʒiiiß. *ſucci aſphodeli* ʒx. *aceti opt.* ʒv. *bulliant omnia ad conſumptionem ſucci & aceti, deinde pulverizentur & incorporent. cum* ʒij. *panis crudii addend. auripigment. calcinati* ʒivß. *& cum modica aqua roſ. fiant Trochiſci.* You may make this ſtronger by leaving out the Ceruſs and Starch, and adding a few drops of *ol. Arſenici*; but you will find the mildeſt of theſe preparations with Sublimate too painful to be applied in tender Bodies. The Cathereticks commonly uſed are *Turbith minerale, merc. præcipitat.* alone or mixt with *Alum. uſt.* or applied with the uſe of the Vitriol-ſtone; the mildeſt is the Precipitate, it is of a ſlow operation, but may ſerve in tender Bodies.

In the eradicating of *Strumæ*, we are ſometimes neceſſitated upon an accidental eroſion of an Artery to apply the ſtrongeſt Eſcaroticks; but generally we qualifie them according to the Habit of Body, Age and Strength of the Patient, and condition of the Glands, as they are hard or ſoft, have more or leſs ſenſe, or are ſeated in or near an Emunctory. In my long Practice in eradicating theſe Glands, I have experimented all the ſeveral Eſcaroticks and Cathereticks aforementioned, and know that thoſe Compoſitions which have Sublimate in them are exceeding painful, ſcarce to be endured in the ſtrongeſt Bodies, although you do take them off in 5 or 6 hours after; yet the Salts having once penetrated the Glands, the Pain will continue vehement many hours after, and affect the neighbouring Parts with great Inflammation and Tumour, and ſo frequently raiſeth new Glands: but when you apply theſe to the ſofter Sex, or tender Bodies, it affects their Head with grievous pain, benumbing that ſide and parts about, depriving their very ſenſes. Fainting, and palpitation of the Heart, are frequent effects of ſuch Eſcaroticks, and not ſeldom a Fever; by which may be judged the ill conſequence of applying ſtrong Eſcaroticks of Sublimate indiſtinctly to all Complexions and Ages.

The Method I uſually begin this Work with is by the application of ſuch a Cauſtick as will leaſt ſpread, making it proportionably long, reaching from the loweſt part of the Gland upward; for in the conſuming it, the *Strumæ* will ſink downwards: you muſt defend the ſides with Plaiſters that it do not ſpread; for the Lips being once divided they will give way, and accordingly as your Eſcaroticks penetrate into the body of the Gland, the ſides of it will fall in and be eradicated out of the narroweſt Opening you can make; and the narrower it is the leſs Blemiſh will ariſe from the *cicatrix*, & the ſooner it will be cured. The Eſcar being made you may divide it the whole length, and with a Cauſtick-ſtone rub into it till it hath penetrated into the body of the Gland, which it will the ſooner do if interchangeably you preſs into the ſame place with a ſtick dipt in *ol. vitrioli.* Having thus done, dreſs it up with *unguent. baſilic. cum oleo lini* hot, embrocating the parts about *cum ol. roſ. & aceto*, and apply an Emplaſter *è bolo* over all. This way of Dreſſing is not without pain, but it ſeldom laſts above half an hour. The third day after you may dreſs it again, and if you find the Eſcar in the middle dried hard, dreſs it with Lenients:

but

but if it feel ſoft rub it again interchangeably with the Cauſtick-ſtone and *ol. vitrioli*, thruſting them every way into the body of the Glands, taking care that the Lips of the Ulcer be not enlarged thereby: by this way of proceeding a great part of the *Struma* will be eradicated before the firſt Eſcar in the Circumference caſt off from the Skin. Having thus near eradicated the *Struma*, you may conſume the Remainder with *Merc. præcipitat.* and keep it open by Doſſils of Lint; permitting the Lips of the Ulcer to contract narrower the while, that it may heal with a *cicatrix* like an inciſed Wound. This I conclude the eaſieſt and ſpeedieſt way to eradicate the largeſt *Struma*: but in theſe complicated *Strumæ*, and others which will not admit of ſuch proceeding I apply an Eſcarotick or the ſtrongeſt Catheretick powders as I ſee cauſe; of which proceeding you may ſee more particularly in the following Obſervations. The *Steatoma* being ſuet yields not to Eſcaroticks.

All this while I have treated only of the *Kings-Evil* as it is contained in a *cyſtis*, being the *Struma* of the Ancients; but in my Hiſtory of the Diſeaſe I have enlarged the bounds of it further, ſo as to take in ſeveral Tumours and Ulcers upon Muſcles, Tendons, Ligaments and Bones; alſo *Ophthalmia*, *Ægylops*, *Fiſtula Lachrymalis*, *Tonſillæ*, *&c.* which cannot be reduced to this Method here propoſed: yet that concerning Muſcles, Tendons and Bones being more univerſal, and happening in ſeveral parts of the Body, eſpecially the Joynts, I ſhall ſay ſomewhat of in this place; the other I ſhall be forced to handle in diſtinct Chapters, and place them in the latter end of the Treatiſe.

As to the *Strumæ*, and other preternatural Tumours included in a *cyſtis*, affecting the Muſcles, Tendons, Ligaments and other parts of the Body, they differ not in the way of Cure from what hath been already delivered, ſave that they require more caution in the Extirpation of them as they affect the Joynts or ſenſible Parts.

The Ulcers ariſing from theſe are cured after the ſame manner that hath been ſhewed in that Treatiſe; for whatever ſome Authors may have pretended of this or that peculiar Remedy, the Cure depends upon the general Method there propoſed, to which if your fancy ſo lead, you may add Specificks.

The gumminеſs upon the Muſcles and Tendons require emollient and diſcutient Dreſſings, as in the Chapter of *Schirrus* hath been demonſtrated.

Swellings of the Joynts are of 2 ſorts, External and Internal.

The Swellings affecting the Joynts in this Diſeaſe are of 2 ſorts: both of them are made by Congeſtion, and increaſe gradually; yet differ in that the one ariſeth externally upon the Tendons, and between them and the Skin, or between them and the Bone; the other internally within the Bone it ſelf.

That which ariſeth externally affecteth the Ligaments and Tendons firſt, and ſometimes relaxeth them to ſuch a degree that the heads of the Joynts frequently ſeparate from one another, and the Member emaciates and grows uſeleſs. But for the moſt part the Humour over-moiſtning the Ligaments and Tendons produceth a weakneſs and uneaſineſs in the Joynt, raiſing a Tumour externally, and in progreſs the Membranes and Bones are corroded by reaſon of the acidity of the Humour; yet it is much haſtened, if upon a Suppoſition of a diſlocation they conſult the Bone ſetters.

In order to the Cure you ought in the beginning of the Fluxion to apply Emplaſters of an aſtringent and drying faculty, *empl. de minio, è bolo cæſaris, &c.* with moderate Bandage, and place the Member in ſuch a poſition as may prevent the deſcent of Humours. If Bloud abound Væneſection may be admitted, but this Humour requireth Purging with *calomel, &c.* and Alteration by ſpecifick

ſpecifick Decoctions, *antimon. diaphoret. bez. minerale, &c.* In the declining of the Fluxion you muſt ſtrengthen the Joynts by Fomentations and Emplaſters of a diſcutient and aſtringent quality, *ſummitat. hyperici, centaur. abſinth. majoranæ, betonic. flor. ſalviæ, anthoſ. roſ. rub. balauſt. nuc. cupreſſi, bacc. myrtill. juniperi, &c.* in Wine with the addition of Brandy and Emplaſter *de ſandicis, &c.* But if through want of ſuch a Treatment they grow exceſſively ſwelled, and the Humour incapable of being preſſed back or diſcuſſed, you may ſhrewdly ſuſpect the Bones corroded: for that Swelling is for the moſt part raiſed by an *Hyperſarcoſis* within, and ought not to be opened without a prediction of a *caries*; for however it may by a ſeeming Fluctuation be thought to have Matter, yet upon Opening it will only diſcharge a Gleet, and the *Hyperſarcoſis* will thruſt out in a *fungus*. If in ſome particular part there do viſibly appear Suppuration, and upon Aperture there do diſcharge an albugineous Matter, you may conclude the Bone under it is rotten, eſpecially if it be hand or foot: and the longer you delay the Opening, the more rotten the Bones will be.

Therefore in ſuch caſes make your prediction of the danger, and give vent to the Matter proportionably large (according to the rectitude of the Veſſels) to the Bone, and proceed in the Cure as in Ulcers with *caries*, being careful to keep the Member in a right poſition that the Joynt above it do not contract, as it frequently happens in the Elbow, Knees and Hip. It ſometimes happens that thoſe diſeaſed creatures fall into the hands of pretenders to Chirurgery, who by improper Applications raiſe great Tumours, and unadviſedly open them; and not knowing how to dreſs them ſuffer the Aperture to be fill'd up, and over-grown with luxurious Fleſh till the Bone rot underneath. It is alſo as uſual in ſome others of our Profeſſion, when conſulted in ſuch caſes, (although they know the Bones to lye carious underneath that *Hyperſarcoſis*) to adviſe the leaving them to nature, perſwading their Patients that it is the work of Time, and that the aſſiſtance by Chirurgery will but increaſe the Malady. But be aſſured one rotten Bone cannot caſt off another, they may well rot in pieces; but until the *Hyperſarcoſis* be removed, and the Bones laid bare, you can expect nothing but Apoſtemations one after another, and your Patients at length will die Hectick. Therefore when you ſhall be called to ſuch deplorable caſes conſume that *Hyperſarcoſis* by ſuch Applications as their ſtrength can bear, and make way to the Bone or Bones, and pull out ſuch as are looſe, and diſpoſe the other to exfoliate; then by Compreſs and Bandage preſs out the Matter, and endeavour to reſtore the part to its natural ſmallneſs; which that you may do, the Ulcer muſt be well deterged, and the native Heat cheriſhed by diſcutient and drying Fomentations as aboveſaid. The Compreſſes under the Bandage ought alſo to be preſſed out of a Solution of *ſal nitri, &c. in aceto.* By this Method you may happily cure them, if Internals be the while preſcribed with regulation of Diet, *&c.*

Spina ventoſa.

The other ſort of Abſceſſes which take their beginning from an Ulcer in the Bone, I have already mentioned in the general Deſcription of the Diſeaſe under the name of *Spina ventoſa*: it hath been taken notice of by very few Authors, and I my ſelf ſucceeded happily in the curing thoſe in the leſſer Bones, many years before I knew what to call the Diſeaſe. And in truth I do not now greatly approve of the Name, but ſhall acquieſce in it, and repreſent it to you as I have frequently ſeen it in my Practice in the *Kings-Evil*, it being a certain *ſpecies* of that Diſeaſe, and of no other that I ever ſaw.

Its Original.

It taketh its beginning from a thin acid *ſerum* in the medullary Juice, which corroding the Fibres maketh a ſolution of continuity there, and at length corrupteth the interior part of the Bone, and at laſt (if not prevented) corrodes

rodes the Shell, and passeth its subtil Humour through some porosity it had made.

This Disease of the interior part by degrees usually so affecteth the external Shell of the Bone, as to raise it to a preternatural Tumour, which at the same time overstretching the *Periosteum* causeth an uneasiness; and this Pain if it grow so acute as to produce Inflammation, an Abscess consequently followeth.

If the Bone be spungy and soft, it is wonderful to see how quickly the Fibres of it will be mollified by the influence of the *serum* of the Bloud, and made apt for a sudden Distension, as if the part were rather muscular than Bone. So in childrens Fingers I have seen a Bone swelled in a night, and the like Tumour raised in the spongy Bones of elder persons in few days, and without much difficulty to yield again to exsiccant Remedies.

Yet it sometimes happeneth that the interior part of the Bone is totally corrupted without any external Tumefaction or Pains, till the acid Humour maketh its way through the *cortex*, and eroding the *Periosteum*, causeth a Solution of continuity there; which by access of pain swelleth and inflameth the external Parts, and produceth Maturation in few days. Those in the protuberant Bones do also frequently raise Abscesses after the same manner, and sometimes whilst the exteriour Parts suffer under another Ulcer different from this: But of that hereafter.

Somewhat of their Differences I have shewed you in the preceding lines, others may be taken from the Quality of the *serum*. In some there is a sudden Tumour raised in a night, in others it swelleth gradually and never corrupteth externally. In others the Humour pierceth through the *cortex*, and raiseth suddenly an Abscess. And these Differences may be said to arise somewhat from the Place or Bone they affect; for accordingly as the interiour part of it is softer or harder, or the external *cortex* is solid or porous, so it suffers Solution sooner or later. Those of the *cranium* for the most part pass their way through the interiour *lamina*, and affect the *dura mater*, *&c.* producing great Pains, Convulsions, *Spasmus*, Epilepsies, and they die before the Disease is discovered. In the great Bones of the Knees, Ancles, Elbows, *&c.* they pass their Matter slowly, and are more generally diseased with Apostemations, externally arising from the protuberance of them. In the *Os tali* or Heel-bone which is spungy within and full of external pores, they make their way through more suddenly, and so accordingly they do in the Jaws, Fingers and Toes. Differences.

The cause of the *Spina ventosa* I have already delivered you in short to be the Acid quality of the *serum sanguinis* in the Bone. The most visible Signs of it are a protuberance of the Bones without discolouring of the Skin, and often without Tumour or Pain. Signs.

The Apostemations proceeding from the *Spina ventosa* do most certainly shew them, they rising always between the Membranes and Tendons; and somewhat of Fluctuation may be felt there before the external Skin be considerably inflamed: also if upon Opening it you make search with a Probe, you will find it penetrate deep into the Bone, yet is the *cortex* of it white; whereas the other Abscesses do always begin externally, and if the Bone be bare, yet is it only superficially carious or stained by the Matter.

The Cure of the *Spina ventosa* in the lesser Bones, as the *Cranium*, Jaws, Fingers and Toes is feasible; but those in the bigger Bones are for the most part deplorable. Infants and Children are generally the subject of this Disease. Prognostick.

In the Cure of these the same Method is required which hath been above proposed Cure.

propoſed in thoſe Abſceſſes and Ulcers with *caries*; as alſo the ſame regulation in Diet and other non-naturals.

The Topicks ought in the beginning to be ſuch as are aſtringent & drying, as hath been ſet down in Abſceſſes, *viz. empl. è bolo cæſaris, comitiſſæ, deminio ſimp. &c. cum ſapone, de ſandicis, & de ranis duplicat. mercurio*, with good Bandage.

If afterwards they paſs their Matter externally they muſt be laid open by Inciſion according to the length of the protuberance. Thoſe of the *Cranium* are not much protuberant for the reaſons aforeſaid, yet you ought to make inſpection, and proceed accordingly by Rugine or Trepan as the Symptoms indicate. Thoſe of the Jaws are viſible, and require vent by extraction of the Teeth, after which the *caries* muſt be conſumed by Medicaments of a drying quality, of which the actual Cautery is the moſt ſpeedy and effectual. Thoſe of the Fingers and Toes are to be laid open by Inciſion in caſe of Apoſtemation the length of the protuberance, and the Bone cut into, and the *caries* dried up. The Ulcers in the greater Bones ought alſo to be opened, that the Matter may be diſcharged, and the Bone laid bare in order to Exfoliation, (if it be poſſible;) but if the interiour part be much corrupted, your beſt way will be to keep that part of the Ulcer dilated which lieth over the Aperture in the Bone by ſome Doſſil dipt in *ſp. vini* or the like, and heal the reſt of the Ulcer, and preſcribe ſuch Internals as may diſpoſe the Body to a better Habit. For theſe only are the carious Bones which we may leave to time, it being in vain to attempt the Exfoliation of great Bones where the rottenneſs, as in a Pear, beginning at the core hath conſumed the ſubſtance of them. How all theſe are particularly treated by me, you may ſee in the following Obſervations of Ulcers with *caries*.

We ſhall begin our Obſervations with the reſolving of *Strumæ*, which generally is a work of Time, and in thoſe which ſuffer under internal Obſtructions of the *Viſcera* it is not ſo advantageous to their healths; upon which conſideration I for the moſt part endeavour to waſte them by Maturation, and the while preſcribe Internals ſuitable to the Habit of body and complication of the Diſeaſe; for if in reſolving them the *Viſcera* grow more diſeaſed, it will be imputed to that, and if new *Strumæ* ariſe the Patient will grow weary and be eaſily perſwaded to conſult others, who ſometime get the credit of the Cure when the foundation was laid to their hands; wherefore I do not readily ingage in this Work till they have tried others, and can willingly ſubmit to my endeavours.

1. Obſervat. of *Diſcuſſion.*

AN Infant about a month old, the only ſurviving child of its Parents, being ſubject to Fermentations of ſharp Humours breaking out in the head, face and body, and frequently affecting the internal *Viſcera*, being recommended to my care, I made a Fontanel in its Neck, and purged it with *ſyr. de rhab.* once in 4 or 5 days, and on the intermitting days gave him a few grains of *bez. minerale* in a ſpoonful of white Bread and Milk: his ſpoon-meat was made in a Decoction of *ſarſa, raſ. eboris*, &c. In caſe of Catarrh or Cough I preſcribed him my anodyne Syrup; ſometime the acid Humours affected his bowels with a *Diarrhœa*, (eſpecially in breeding his Teeth:) to remedy which we preſcribed *diaſcord. cum pul. rhab.* &c. Thus each diſturbance was leviated, and the Child thrived. In his 2d. year he fell into the ſmall Pox, and was helped through it by Dr. *Tho. Cox*; after that the *Kings-Evil* appeared in large Glands on the left ſide of his Neck: I embrocated them *cum ol. ex ped. bovinis*, and removed his Fontanel into his Arm, alſo purged him with Rhubarb infuſed in his Drink, and preſcribed *merc. diaphoret.* his breaking out in his Head was anointed with Bacon-lard, and covered with

with a Cap made of a Bladder. It was easie for me to have cured all the Eruptions in the Skin with Externals, but I thought it safer to cure them by sweetning his Bloud. The last Symptom which appeared was a swelled upper Lip, at sight whereof I purged him again as aforesaid, and discussed the Swelling. This method of purging with *infus. rhab.* &c. he continueth to this day, and hath thereby recovered a strong healthy Habit of body.

A Youth aged about 13 years, of a strong Habit of body, was commended to me, having a *Struma* of an oval figure on the right side of his Neck; under his Ear he had also an *Ozæna*, with a thick chopt upper Lip. I purged him with the Infusion of *Sena*, &c. prescribed in the method of Cure, and afterward with one of the specifick purging Powders, to which I added *Calomel.* & enjoyned him the drinking *decoct. sarsæ, lign. guaiaci*, &c. with a strict drying Diet, and made him a Fontanel in his Arm. I embrocated the Gland *cum ol. ex ped. bovinis & aceto*, and applied *emplastr. diachyl. ireatum* malaxed with *cerat. æsypi.* By this method the *Struma* relaxed, and seemed to be divided into 3 small Glands, which also resolved soon after. The thick chopt Lip was cured by the anointing it with *Merc. præcipitat.* mixed with *unguent. rosat.* After it was cured, I perceived his Nose swelled and hard; I lookt upon his Nostrils, and saw them contracted very small, and stuft with a crusty Matter. I directed some *ol. lilior.* to be snuft up into his Nostrils, and the next day caused them to be syringed with *decoct. hordei, sem. lini & althæa*, and purged him the day following with *extract. Rudii* and *Calomel.* repeating it every other day, and continued the drying Decoction, *antimon. diaphoret.* &c. His Nose being cleansed of its *Mucus*, I syringed it with one of the *Errhina* prescribed in the Cure of *Ozæna* in *Lues Venerea*, and thereby healed the Ulcers. 2. Observat. of Discussion.

A Child of about 4 years of age was diseased with a *Vitiligo*, thick upper Lip, and a couple of *Strumæ* on the left side of his Neck somewhat large. I purged him with an Infusion of Rhubarb once in 3 or 4 days, and prescribed him 6 grains of *Merc. diaphoret.* sometimes, and other times *Bez. mineral.* then removed his Fontanel out of his Neck into his Arm. Thus at length the *Vitiligo* was dried up, and the *Strumæ* totally resolved. His Lip was frequently relaxed upon his purging, but at length it ceased swelling. 3. Observat. of Discussion.

A Maid aged about 12 years, who had formerly been extreamly diseased with internal Obstructions of her Mesentery, *&c.* supposed the *Kings-Evil*, was cured by Sir *Fra. Pruj.* but after 4 years relapsed, and came to me with several *Strumæ* on both sides of her Neck. I directed the embrocating them with *valentia digitalis* morning and evening, purging her sometimes with a cathartick Apozeme of *sena, rhabarb. agaric. hermodact. turbith. polypod.* &c. *cum syrup. de spina cervin.* and in the intermitting days kept her to the drinking of a *decoct. sarsæ, lign. lentisc.* with some of the antistrumatick Plants prescribed in the method of Cure; with which she took some of the Specifick. There was also prescribed *cerussa antimonii*, &c. The Glands sensibly resolved, and she recovered her health. 4. Observat. of Discussion.

A Maid aged about 24 years, of a strong Constitution, came out of the Country to me with many *Strumæ* on both sides of her Neck. I purged her *cum pulv. diaturbith magist.* with the addition of *Calomel.* and prescribed her a *decoct. sarsæ, Chinæ, lign. vitæ*, &c. which being clarified was afterwards decocted with *mel commune*, of which she drank thrice a day with *antimon. diaphoret.* &c. During her taking these Internals, her Neck was for some time embrocated daily with *valentia digitalis*, and a Cerot was applied *ex rad. bryoniæ, cyclamin.* &c. After she had some weeks experimented the foresaid method, and found relief thereby, she returned into the Country. About a year after she came up to *London* in a very good condition, and by my advice was again purged, 5. Observat. of Discussion.

purged, and a Solution of crude Mercury dissolved *in aq. regis* was added to the said *Emplastr. ad strumas:* by which, as I have been since informed, those *Strumæ* are near resolved.

6. Observat. of Discussion. A Maid-servant of about 24 years of age, of a Phlegmatick Constitution, came to me with pituitous Swellings in her Legs and Thighs. She had been frequently purged and treated rationally by others: but the Swellings continuing, she came to me. I advised her to proceed on in the foresaid Course of Physick, and directed her to wear laced Stockings and Trowzes: the former whereof she did make use of with much advantage. But some weeks after she returned to me with many *Strumæ* thrust out on both sides of her Neck, very big, and of different figure. I purged her with *pil. cochiæ min. calomel.* &c. and prescribed her opening Decoctions, with Chalybeats and Antistrumaticks, according to the method of Cure, also directed the embrocating her Neck with *valentia digitalis*, &c. but had no great hopes to resolve those Glands whilst pituitous Humours so abounded. The Cure being slow, she grew weary, put her self into other hands, and at length died, I suppose Hydropical.

7. Observat. of Discussion and Suppuration mixed. A Child aged about 7 years, having been some time diseased with Obstructions in her Mesentery, *&c.* and a hard *Struma* of an oval figure moveable under her Chin, Dr. *Dacre* and my self were consulted. We made her a Fontanel in her left Arm, and prescribed one of *Celsus Malagma*'s, which we applied on the Gland, and set her down this following Course of Physick: ℞ *resinæ jalapii* gr. 5. *calomel.* gr. 10. *conf. ros. damasc.* ʒij. *cum syrup. violar. q. s. fiat Bolus sumend. mane crastin. cum regimine.* ℞ *lign. sancti, sarsæ, an.* ℥ij. *sassafras* ℥j. *fol. scrophul. filipend. cum toto, an.* M. iij. *betonic. salviæ, urticæ, malvæ, an.* M. ij. *roris marin. majoran. an.* M. j. *rad. lapathi acuti, ruscі, polypod. an.* ℥ij. *rad. galangæ* ℥j. *nuc. moschat.* ʒß. *uvar. passular.* ℔ß. *milliped.* 500. *contund. aliquant. & præparentur pro sacculo suspendendo in cerevisiæ mediocr. cong.* 3. *& post debitam infusionem utatur pro potu ordinario.* ℞ *antimon. diaphoret.* ʒß. *sumat in cochl.* 1. *potus præscript. mane & vesperi.* By the application of the Emplaster part of the Gland resolved, and part discharged it self in a thin Humour, fretting through small Pin-holes in the Skin. After it was thus totally wasted, I cicatrized the Frets with *unguent. tutiæ*; during which she recovered her health. Mr. *Barnard* was her Apothecary.

8. Observat. of the effects of *Merc. dulc.* in Children. A young Gentlewoman about 13 years of age, Sister to her in the preceding Observation, of a Plethorick body and strong Constitution, was diseased with an *Ophthalmia*, &c. I prescribed an Infusion of Rhubarb in small Ale to take 3 days, then to take *Merc. dulc.* gr. 10. *sacchar. alb.* gr. 6. in a spoonful of White-bread and Milk, and gave her half a dozen papers of the Powder, designing she should repeat the taking them once in 4 or 5 days. She went into the Country, and observed the Directions. She took *Calomel.* upon a Saturday in *Christmass* week: it purged her 3 or 4 times. She slept well that night, and went to Church the next day modishly dressed. The night following she complained of some indisposition, and was griped, she also vomited and purged often. She continued ill 3 days before I had notice of it. Then Dr. *Dacre* and my self went to her, and found her in bed, subject to a Vomiting and a *Tenesmus*, with frequent excretion of a *Mucus*. We directed Clysters of Milk *cum vitellis ovor.* we also gave her a morsel of an Electuary of *diascord. ceruss. antimon. conf. ros. rub. confect. alchermes*, as it is prescribed in the Treatise of *Lues Vener.* in such cases. We likewise prescribed her *decoct. rad. scorzoneræ, corn. cerv. ust.* with *aq. cinnam. hordeat.* She did not complain of any soarness in her Chaps, nor was there any smell of the Mercury in her breath. She rested well that night, and was well in the morning. We returned to *London*, concluding that her Distemper was the effect of Cold

she

ſhe had taken at Church. Two or three days after I received a Letter, that ſhe was ſeized again with a Vomiting and Griping in her Bowels. I carried the Letter to the Phyſician; who concluded her Diſtemper to ariſe from the corroſive quality of the Mercury. I replied, it would not then have ceaſed upon our Preſcriptions: beſides, her Chaps muſt then have been ſoar, which they were not. I concluded, that the Humours drawn inward by her Purging, being checked as aforeſaid, ſtill affected her Bowels, and required to be purged off. To which purpoſe I reſolved to carry with me 2 quarts of *Barnet*-water to purge her. I accordingly went early the next morning, boil'd it with Milk, and diſſolved ſome Manna in the firſt draught. She vomited that preſently. I gave her more of the ſame Water, and plied her with it till ſhe had drank it all. She vomited much green Choler with viſcous Phlegm, and her Stools were frequent and bilious. A Clyſter was given her of Milk and Yolks of eggs; and that night I laid her to reſt with an Anodyne draught. She ſlept well, had a good Stool in the night, and ſlept again. She eat a boiled Chicken in the morning, and from that time was no more griped. I ſtayed 2 days, and, ſeeing no Relapſe, came away. This was all the ill I ever met with in the giving *Merc. dulc.* and upon ſuch ill regulation every Cathartick would have done as much.

1. Obſervat. of Suppuration.

A Woman of about 36 years of age, who had formerly been afflicted with a Strumous Ulcer, came to me, with another of an oval figure, very hard, near the Muſcle *maſtoïdes*. I applied a *Malagma* of *Celſus*, with directions to continue it ſo long as it would ſtick. In the ſpace of 3 weeks it ſuppurated it, and fretted a hole, by which the Matter burſt forth. I dreſſed it with *unguent. baſilic.* and *empl. diachyl. ireat.* as it is preſcribed in the method of Cure. There remaining ſome hardneſs after the diſcharge of Matter, I applied again the *Malagma*, which cauſed a Suppuration of the remainder: which being permitted to flow forth, I dreſſed it with Lenients as aforeſaid, and thereby cured the Abſceſs, without inlarging it by Knife or Cauſtick.

2. Obſervat. of *Struma* ſuppurated.

A Child of about 4 years of age, being internally diſeaſed with a Cough, *&c.* was put into my hands for Cure of a *Struma* on the right ſide of his Neck, near the bigneſs of a ſmall Pullet's egg. I purged him with *ſyr. diaſereos* diſſolved in a pectoral Decoction, and preſcribed Lohochs, alſo medicated Ale, *Bezoard. mineral.* &c. Externally I embrocated with *unguent. magiſt. ad ſtrumas*, and applied *cerat. Agrippin.* by which method the *Struma* reſolved, and the Child recovered that Summer in the Country, by repeating the Internals above mentioned. But about a year after he returned to Town diſeaſed with a large *Struma* on the ſame ſide of his Neck, and internally obſtructed with the ſaid Diſeaſe. Antiſtrumaticks were preſcribed as formerly in order to the removing thoſe Obſtructions; the *Struma* was ſuppurated, the Matter let out, and the remaining body eradicated, the Ulcer alſo diſpoſed to cicatrize. During which the Child not taking thoſe Internals deſigned, the Obſtructions increaſed, and he died before the Ulcer cicatrized.

3. Obſervat. of *Struma* ſuppurated.

A Man of about 25 years of age, much emaciated with the *Kings-Evil*, being internally obſtructed, was commended into my hands. He had externally on the right ſide of his Neck a great Cluſter of *Strumæ*: ſome of them were inflamed, and inclinable to ſuppurate; others lying amongſt them, and ſcattering about, were pale and hard. I applied over the whole Tumour ſome of the Suppuratives ſet down in the method of Cure; and having concocted the Matter, where I found it at firſt inflamed, I applied a Cauſtick the whole length of the Bunch, taking in ſuch a breadth as might ſerve for the eradicating of the reſt. Then dividing the Eſcar, I gave vent to the Matter, and dreſſed it up with Le-

nients. During the digeſtion of it, I purged him with an Infuſion of Sena, Rhubarb, *&c.* and put him into a *decoct. farſæ, lign. lentiſc. ſantal.* &c. with *milliped.* and ſome of the antiſtrumatick Plants, and preſcribed him *Calomel.* with ſome of the milder Purgatives to be taken once in 4 or 5 days. After ſeparation of the Eſcar, I ſaw the Ulcer lying unequal, and by ſearch of my Probe found *Sinus*'s running under one another, ſome of them deep under the Muſcles. They ſeemed to be made by the unequal Suppuration of the Glands. Some of the deepeſt *Sinus*'s I dreſt with Doſſils ſpread with *unguent. baſilic.* and Præcipitate, others I dipt in Præcipitate; ſome I rubbed with the Cauſtick-ſtone, others with the Vitriol-ſtone; then covered all the Ulcer with Præcipitate, and applied *empl. è bolo* over all. After I had thus eradicated thoſe *Strumæ* moſt conſpicuous, I divided ſome of the uppermoſt *Sinus*'s with a pair of Probe-ſciſſors, and kept the Lips dilated with Doſſils dipt in Præcipitate, till I had waſted thoſe Lips: then I made way to the *Sinus*'s, and laid them all open, with Eſcaroticks ſmoothing the Ulcer; and raiſing a baſis of good Fleſh, I cicatrized the Ulcer even. After I had cured him, I continued the proſecuting of the foreſaid Courſe of Phyſick with ſome of the milder Specificks, and directed him to drink Aſſes milk; which he did, and thereby recovered his ſtrength, and appetite to ſtronger nouriſhment. About two months after, this perſon came to me, complaining of that ſide of his Neck. Dr. *Walter Needham* being preſent, we both looked upon the place where the *Strumæ* had been lodged, and ſaw that Part and the Clavicle down to the head of the *Os humeri* much leaner than the other ſide. I made him a Fontanel in that lame Arm, and adviſed the embrocating the extenuated Parts with *axung. humana cum guttis aliquot ol. lavendulæ:* by the uſe whereof it plumpt, and he enjoyeth a good health to this day.

1. Obſervat. of Inciſion of a *Melicerin.*

A Man of about 45 years of age came to me with a round Tubercle (without inflammation) between the Sagittal and Coronal Suture. I opened it by Inciſion, and diſcharged firſt a yellow *Serum*, then a gritty Matter like Honey. I wiped away the bloud, and preſſed out the Matter; then dreſſed it with Doſſils ſpred with *unguent. baſilic.* dipt in Præcipitate, and thereby digeſted out the *cyſtis*; and cured it ſoon after by the common method.

2. Obſervat. of Inciſion.

A Man of about 30 years of age came to me with an *Atheroma* on one ſide the left Temporal Muſcle. I opened it by Inciſion, and digeſted it with *mundif. Paracelſi.* He had alſo one near the Coronal Suture, which had been formerly opened by Puncture, and remained ſinuous and full of looſe Fleſh. I laid it open by a ſnip of a pair of Sciſſors, and deterged, incarned and cicatrized them both according to the uſual method of curing ſuch Ulcers.

3. Obſervat. of Inciſion.

A Gentleman came to me one evening with a *Steatoma* a little above the Coronal Suture. I ſlit the Skin with a Lancet, and thruſt it out with its *Cyſtis*, then applied a Pledgit of *unguent. baſilic.* over which he put his Peruke on without farther concern, and cured it himſelf in few days.

4. Obſervat. of Inciſion.

A Woman of about 40 years of age had 5 of theſe ſcattering about her Head, all which I cut out: ſome of them were ſmall, others large. They digeſted with *unguent. baſilic.* and were ſoon cured. Sometimes they lie ſo ſuperficially, that the ſcratch of a Comb hath made way for their diſcharge.

5. Obſervat. of Inciſion.

A Child of about 3 years of age was brought out of the Country to me with a *Struma* on the left Eye-brow, of an oval figure. I made Inciſion upon it according to its length, and, ſeparating it from its Ligaments, thruſt it out, then put a ſmall Doſſil in its place dipt in a Digeſtive, with a Pledgit of the ſame, *cum emplaſtr. è bolo*, and Bandage over it. The fourth day after I dreſſed it again, deterged it with *unguent. baſilic.* and Præcipitate upon a leſs Doſſil, and

dreſſed

dreſſed it up as aforeſaid. The ſecond day after I left off the uſe of Doſſils, and, bringing the Lips together, dreſſed them up with the common Sarcotick, thereby uniting them in a few days, and returned the Patient cured with a ſeemly *Cicatrix*.

A Maid aged 18 years had a *Struma* on the left Brow of the bigneſs of a Pear-plum. I made Inciſion into the Skin according to the length of the Brow, and ſeparating it, took it out. I dreſſed it with a Doſſil dipt *in albumine ovi & pulv. Galeni*, and with *empl. è bolo* and Bandage bound it up. The next day the Eye-lid being very much ſwell'd, I embrocated the Parts about *cum ol. roſ. & aceto*, then let her bloud, preſcribed a Clyſter at night, and an Anodyne draught. The day after, finding the Inflammation and Swelling great, & the Wound ſanious, I fomented them with *decoct. flor. melilot. cham. roſ. rub. balauſt.* &c. *in vino rubr.* and dreſſed the Wound with a Digeſtive *ex terebinth. cum vitell. ovi*: by which method the Wound digeſted, and was afterwards deterged with *mundif. Paracelſi*, and incarned. I afterwards cicatrized it with *aq. calcis*, &c. 6. Obſervat. of Inciſion.

A Youth of about 12 years of age had a *Struma* lying under his right Jaw, of an oval figure. I made Inciſion into the Skin according to its length, then ſeparating it, faſtened a Ligature under it, and cut it out, leaving the Ligature to digeſt off. I dreſſed it with a Digeſtive *ex terebinth. cum empl. è bolo*. After Digeſtion I deterged, incarned and healed it as hath been ſhewed in the former Obſervations. 7. Obſervat. of Inciſion.

A Young man aged 24 years was brought to me, who had a large *Struma* on the *Os frontis*, of an oval figure, between his Eye-brows. I divided the Skin, made ſeparation of the Gland, and thruſt it out; then cut it off, and dreſſed the Wound with Pledgits and Doſſils ſpred with *unguent. baſilic.* dipt in *pulv. Galeni*, and with Compreſs and Bandage bound it up. The third day I dreſſed it again with warm Digeſtives, and afterwards deterged with the addition of Præcipitate. By leſſening the Doſſils it contracted, and I incarned and cicatrized the Lips cloſe, according as is uſual in ſuch Wounds. 8. Obſervat. of Inciſion.

A Child of about ſix years of age had a long white Swelling reaching down from the *Os frontis* between his Eye-brows to the Ridge of his Noſe, ſwelling both ſides of his Noſe to both the Angles of his Eyes. After various endeavours by internal and external Remedies, he was commended into my hands by Sir *Fra. Prujean* and Dr. *Wolf*. I deſigned the opening it by Inciſion according to the length of the Tumour: to which purpoſe I marked it with ink, and cut into the Tumour as low as might ſerve to diſcharge the Matter, with regard to the beauty of the Noſe, where the leaſt Scar is a blemiſh. There diſcharged a Matter not unlike the White of an egg, upon which the Tumour ſunk. I dreſſed the Wound with a Digeſtive *ex terebinth. cum vitello ovi* upon a Doſſil with a Pledgit and an Emplaſter over it; applying upon the ſides and lower parts of the Noſe Compreſſes of Lint dipt in Oxycrate, to preſs out the Matter, and retain them cloſe, that they might unite the ſooner. By this method the Abſceſs was digeſted, and afterwards cured in 10 or 12 days by the common method. 9. Obſervat. of Inciſion.

A Woman of about 28 years of age had a large *Struma* on the left ſide of her Neck, of an oval figure and moveable, under the Skin. I made an Inciſion the full length of it, and, ſeparating it from the Skin on the ſides, pull'd it out, tied a Ligature on the Veſſels under it, and cut it off, then dreſſed it up with a Doſſil ſpred with a Digeſtive *ex terebinth.* dipt in *pulv. Galeni*, with Pledgits of the ſame Digeſtive over it, and a reſtrictive Plaiſter over all, with a retentive Bandage. After Digeſtion I incarned, and cicatrized the Lips together, according to the foreſaid method. 10. Obſervat. of Inciſion.

A Gentleman aged about 63 years, having been ſome years diſeaſed with a *Sar-* 11. Obſervat. of *Sarcoma* cured by Exciſion.

Sarcoma on his lower Lip, consulted me with Dr. *Fielding*, an eminent Physician of the City of *Glouceſter*. It had been formerly attempted by Eſcaroticks and by Exſiccants; but it returned, and thruſt forth Excreſcences, one whereof was not unlike a Strawberry. They were accompanied with Tumour and hardneſs, and would not cicatrize by any Application, but grew up, and ſpred under a cruſty Scab, which frequently fell off of it ſelf. We reſolved upon the extirpation of it. To which purpoſe the Dr. prepared his body by Purging, *&c.* Then in order to the work, the Patient being placed in a Chair to the light, I marked out ſo much as I deſigned to cut off; then took hold of the Lip between my Thumb and Fore-finger, and preſſing the *Sarcoma* outward, I cut it off with a pair of Sciſſors: upon which I ſaw the remaining roots ſtart up in a ridge of looſe Fleſh. I preſſed them upward, and ſnipt them off. Then, after I had permitted the Arteries to empty themſelves awhile, I ſtopt them by the application of Doſſils preſſed out of *tinctura vitriol. dulc.* and with *pulv. Galeni cum album. ovi* dreſſed the Wound up. From that time it bled no more. The third day I took off Dreſſings, and ſaw the Wound well diſpoſed to digeſt. I dreſſed it with Digeſtives *ex terebinth.* &c. and from that time deterged it with *Merc. præcipitat.* and the Vitriol-ſtone, cicatrizing it with *unguent. tutiæ* and the Alume-ſtone, and ſo it continues to this day.

12. Obſervat. of *Noli me tangere* cured by Exciſion.

A Woman about 30 years of age had a ſmall Gland of the bigneſs of a Lupine upon her left Cheek a little above the lower Jaw. It had been a long time growing, and of late years was exceedingly painful, periodically pricking and ſhooting with Inflammation in that Cheek, and would endure no Application. Upon which account ſhe came to *London*, where ſhe conſulted ſeveral of our Profeſſion together. They all thought it neceſſary to be eradicated, but differed in the manner, moſt of them concluding the actual Cautery propereſt. I was afterwards conſulted with Dr. *Tho. Cox*, and propoſed the extirpating it by Inciſion, and a week after viſited her again; when, in the preſence of Dr. *Cox*, I paſſed a Needle under the Gland, and cut it off. I dreſſed it with a Digeſtive *ex terebinth.* &c. deterged with *unguent. baſilic.* and *Merc. præcipitat.* and afterwards cicatrized it with *unguent. tutiæ*, and diſmiſſed her cured.

13. Obſervat. of Inciſion.

A Youth about 12 years of age had a *Struma* of an oval figure on his right Cheek, lying moveable between his Jaws, and moſt capable of being taken out on the inſide within his Mouth. I made Inciſion upon it there, and with my fingers pull'd it out, then waſht his Mouth with Oxycrate: but it continuing to bleed, I fill'd the Wound with Doſſils of Lint, and placed a round Boulſter dipt in the foreſaid Oxycrate between his Teeth and Cheek: I alſo applied externally a Compreſs ſpred with a Defenſative with Bandage; by which the bleeding was reſtrained. I took out the Boulſter in the morning from between his Cheek and Teeth, and permitted him to waſh his Mouth with a tincture of Roſes with *ſyrup. diamoron*, and the ſecond day after took the Doſſils out of the Wound: but ſuſpecting that the way of dreſſing it with them might prolong the Cure, I clipt off the lower Lip with a pair of Sciſſors, and preſcribed him a ſanative Lotion of *fol. plantag. virg. aur. alchimillæ, piloſellæ, rad. conſolid. & liquiritiæ, cum ſyr. de roſ. ſiccis:* by the uſe of which it cured in few days.

14. Obſervat of Inciſion.

A Man of about 30 years of aged had an *Atheroma* on his left Cheek, which at length made its way externally through a ſmall Orifice, and healed up again. It growing vexatious to him by its frequent eruptions, he put himſelf into my hands at a time when it was full of Matter. I, feeling the Tumour big within between his Jaws, made a large Inciſion into it, and diſcharged a foul Matter with dregs, which ſhewed it a *Meliceris*. I put my finger into it, and with a Knife in my other hand cut off the neareſt Lip as far

far as it was hollow, and prescribed him a *decoct. summitat. equiseti, veronicæ, bistortæ, rad. iridis, consolidæ*, &c. to wash his Mouth: by which he was cured, and from that time relapsed not.

A poor fellow of about 40 years of age came to me with a large white Tumour upon the right Cheek reaching close to the tip of his Ear, supposing it was the *Kings-Evil*. I put my finger into his Mouth, and feeling it big within, and the Matter fluctuating, I thought it Atheromatous; yet for more security opened it by Puncture. It discharged a bloudy *Serum*. I permitted it to empty it self, (it being towards evening) and contented my self in stopping it up with a Tent of Lint dipt *in albumine ovi*, applying a restrictive Emplaster and Bandage on the external parts. The next morning, finding the external Tumour sunk, I took out the Tent from within, enlarged the Opening, and thrust out a foul Matter like dregs of Beer. I cured it in few days, after the same method that hath been shewed in the former Observation. 15. Observat. of Incision.

A Tradesman aged about 30 years came to Dr. *Walter Needham* and my self (while we were dressing a Patient in the City) with a large soft Tumour within his right Cheek near his Mouth, much distorting it, so that it hindred him in eating his Victuals: it was overspred with a *Varix*; which ill aspect, I suppose, had deterred the Chirurgeons whom he had consulted from medling with it. But we concluding it a Species of an *Atheroma*, I opened it by Incision by the side of that *Varix*, and discharged a proportionable quantity of *Serum*, and crusht out a Cheesie substance. Then considering that the over-stretched Lips of the Abscess would by falling between his Teeth be very troublesome, I cut them away, laying the Abscess open: after which I gave him Water and Vinegar mingled together, to wash his Mouth, and prescribed him *decoct. veronicæ utriusque, salviæ, betonicæ, flor. ros. rub.* with a Solution of *mel. ros.* to gargle it: and by the touching it sometimes with a Vitriol and Alume-stone, it was deterged and cicatrized in few days; his Cheek also contracted, and became natural as the other. 16. Observat. of Incision.

A Man of about 24 years of age came to me with a very large soft Tumour under his upper Lip near his Nose, with very great deformity. He had tried the endeavours of the Physicians and Chirurgeons in the Country by internal and external Remedies, and earnestly desired my help. I, concluding it Atheromatous, proposed the opening it: which he submitting unto, I passed a Knife deep into it, and gave vent to at least a Bloud-porrenger full of serous Humour. Upon consideration of the quantity, I made a search with a Probe, and felt a large Opening into the Cavity of the *Maxilla superior*; but supposed nature would dispose it to heal, if the Orifice were a while kept open. To which purpose I immediately inlarged the Orifice by Incision the whole length of the Abscess, and gave him of the Decoction prescribed in the former Observation to wash his Mouth. He stay'd 3 or 4 days in Town, and shewed himself to me. The Abscess being well disposed to cure, I permitted him to retire to his house in the Country, and prosecute that method. Whilst he was there, the Orifice closed, and the Part grew painful and swelled again; upon which he returned to me. I opened it, and discharged a well-concocted Matter, keeping it dilated with a Tent dipt in *syr. de ros. siccis*. By this way of dressing the agglutination of the Ulcer was prohibited, and the Abscess was drained. He returned back into the Country, and I suppose was thereby cured; for I heard no more of him. 17. Observat. of Incision.

In the time of the last great Sickness, whilst I was in the Country, a young Woman was brought to me who had a large unequal Tumour near her Neck, movable, and without Inflammation. I, designing to take it out by Incision, prepared 18. Observat. of a complicated Tumour taken out by Incision.

prepared Dreſſings ready, and had 2 Women, and a Boy that I had taken to attend me that Journey, preſent to aſſiſt me. During the ſeparation of the Skin from the Wound, it bleeding, my two Women left me, and the Boy dropt down in a Swoon: the Patient alſo growing froward, and the work of Separation being not very eaſie, I was put upon a neceſſity of cutting into the *Cyſtis* the whole length: in the doing of which there diſcharged about half a large Porrenger-full of *materia polenta*: after which, putting in my hand, I pulled out a hard body of Suet. It was a *Steatoma*, and weighed 9 ounces and a half. Then I fill'd the *Cyſtis* with Stupes of Tow dipt in a mixture of *unguent. baſilicon* and *ol. terebinth.* hot; and bringing the Lips of the Wound over it, applied an *emplaſtr. è bolo*, with convenient Bandage, to retain the Dreſſings, there being no appearance of its bleeding. The fifth day after I returned thither again, and dreſſed it as before, the Wound digeſting well. The fourth day after, dreſſing it again, and ſeeing the *Cyſtis* lie looſe, I pull'd it away with the Dreſſings; and perceiving the Wound within freſh, I brought the Lips flat over it, and healed it in few days by Agglutination. I did not deſign the leaving this *Cyſtis* behind when I began the Operation; but am ſatisfied that it is the eaſieſt and moſt ſafe way in great complicated Tumours, where there is danger of a flux of Bloud, and much to be preferred before that Mountebank-way of Abſciſion with Ligature in every reſpect.

19. Obſervat. of a preternatural Tumour taken out of the left Breaſt by Inciſion.

A perſon of above 60 years of age, of a corpulent full Body, had a round movable Tumour on his left Breaſt of the bigneſs of a Cheſnut. I divided the Skin by Inciſion, and, finding that Tubercle lying in its *Cyſtis*, I eaſily thruſt it out by paſſing a *Spatula* under it; then dreſſed up the Wound with a round Doſſil ſpred with the common Digeſtive *ex terebinth. cum vitell. ovi*, with *empl. è bolo* over it. The third day I dreſſed it again, leſſening the Doſſil. Thus the Wound digeſted, the Lips contracted and incarned, and healed in few days. In this *Cyſtis* was contained a Traſh not unlike Hair or Wooll. This perſon was ſubject to theſe preternatural Tumours. He had one cauſed by the Waſt-band of his Breeches, which I afterwards cut out: it contained the ſame kind of Traſh.

20. Obſervat. of a complicated Tumour *in Inguine* taken out by Inciſion.

Whilſt I was attending a Perſon of Honour in the Country, I was deſired by an Apothecary in the neighbourhood to look upon an elderly Woman, who had a very large unequal ſoft Tumour in her right Groin. I concluded it complicated, and at their deſire opened it, & diſcharged about the quantity of a Pint of a brown traſhy Humour: whereupon the greateſt part of the Tumour was voided; but what remained of it lay as it had been a coverture to a cluſter of Damaſcens. I inlarged the Orifice, and found theſe ſo many Bladders containing ſeveral ſorts of Traſh in them, ſome whereof was melicerous. I pull'd them out, and tare a thick Membrane which had divided the Abſceſs into ſeveral partitions; then dreſſed it with Stupes of fine Tow ſpred with *mundif. Paracelſi*, which I dipt in Præcipitate, and bound it up. The fourth day I dreſſed it again; and, ſeeing it digeſted, I dreſſed it with ſome of the ſame Mundificative dipt in *mel roſar.* and embrocated the Parts about *cum ol. roſ.* By this method the Abſceſs deterged, and the Tumour leſſened: by which time having done my buſineſs in that Noble Family, I left the Cure of the Woman to the Apothecary, who finiſhed it.

21. Obſervat. of *Struma* eradicated by Cauſtick.

A Maid aged 24 years came to *London* diſeaſed with a large *Struma*, of an oval figure, lying on the left ſide of her Neck deep amongſt the Muſcles and Tendons. After evacuation by Purging, deſigning the eradicating it by Cauſtick, I marked out the place with ink, drawing 2 lines down the length of it, about a finger's breadth from one another: then defending the outſides with

Snips

Snips of Plaisters, I applied Pledgits spred with my caustick Unguent in the void space, with *emplastr. diachalciteos*, Compress and Bandage. The next day I divided the Escar, and rubb'd into it with a Caustick-stone and Stick dipt *in ol. vitrioli* interchangeably, till I had penetrated deep into the body of the *Struma*. Then I cut through that Escar, and dressed it up with *unguent basilic.* malaxed *cum ol. terebinth.* embrocating the Parts about *cum oleo ros. & aceto.* I then dressed it up with *empl. è bolo.* The third day I took off Dressings, and fomented it with *decoct. fol. althææ, malvæ, summitat. abrotoni, flor. sambuci, sem. lini*, &c. and dressed it with Lenients as before, to hasten the separation of the Escar. After I saw the Escar digest, and somewhat separated in the bottom, I rubb'd into the *Struma* again with the Caustick, penetrating deeper into each part of it, and dressed it up with Lenients, and so dismissed her. About an hour after, the Escaroticks penetrating some Artery in the Gland, it bled through the Dressings very much, and continuing so to do, she was brought back to my house in a Coach: at which time I was in the next Street with Dr. *Walter Needham*, experimenting the Royal Stiptick-Water. We hastned to this Patient, and seeing her bleed, we took off the Dressings, and applying Dossils dipt in the Stiptick, immediately stopt it. I dressed the Escar with Lenients, and a Restrictive over it. The fourth day after I took off Dressings, and applied Lenients again. After the separation of the Escar, seeing the body of the *Struma* consumed, the sides only remaining, I fill'd it with Præcipitate, and kept the Orifice dilated till they were totally wasted; then permitted the Ulcer to incarn, and afterwards brought the Lips of the Ulcer close together, and cicatrized them with *unguent. desiccativ. rub.* &c.

2. Observat. of the like.

A Gentleman aged 30 years, of a tolerable good Habit of body, had been long diseased with a hard *Struma*, of an oval figure, seated under the lower Jaw on the right side. After he had vainly endeavoured by various Applications to resolve it, he put himself into the hands of Sir *Alex. Fras.* and my self. We proposed to eradicate it by Escaroticks: to which purpose his Body being prepared by Purging, we began our Chirurgery with the application of a Caustick the length of the *Struma*, and the next day divided the Escar, fomenting the Tumour with a Decoction of *absinth. flor. cham. ros. rub. balaust.* &c. then fill'd up the divided Escar with *pulv. sine pari* of Sir *Alex. Fraser*'s prescription, applying Pledgits of *unguent. basilic. cum ol. ros.* over it. The second day after I fomented and dressed it up again with Lenients, and continued that method till the Escar made by the Escarotick began to separate: then I thrust it off, and fill'd it again with *pulv. sine pari.* By this way of dressing, sometimes with Escaroticks, and othertimes with Digestives, we consumed the main body of the *Struma*, and afterwards digested out the *Cystis* with *Merc. præcipitat.* then permitted it to incarn by lessening the number of the Dossils, and at last cicatrized it with a small Seam by the help of the Vitriol-stone and common Epuloticks.

3. Observat. of the like.

A Man aged 20 years, of a Phlegmatick Constitution, came to me with a large *Struma*, of an oval figure, lying under the lower right Jaw. There were also some little ones lying higher up nearer that Ear. The bigger of these had not appeared worth taking notice of till within six weeks of the time that he came to me. I began with the application of *valentia digitalis*, and purged him frequently with *pulv. diaturbith, pil. cochiæ min. calomel.* &c. The Tumour increasing, I applied more powerful Resolvents, as *emplastr. diachyl. ireatum cum gummi*, &c. by which, after some time, it tended to maturation; and then I proceeded that way, purposing not to open it till the whole *Struma* should be suppurated. But he, impatient of the delay, shewed it to some

other, who opened it whilſt the Suppuration was ſuperficial; ſo that preſently after the diſcharge of the Matter it hardned again, and grew difficult of Cure. The Patient returning to my hands, I took off the Dreſſings, and ſeeing the Tumour large and hard, the Orifice ſmall, and a Tent in it, I pull'd it out, and filling the Orifice with Lint, applied a large Cauſtick according to the length of the Gland. The next day I divided the Eſcar, and fill'd the inciſed part with *turbith mineral.* and applying Pledgits of *baſilicon* over the Eſcar, dreſſed it up with *empl. è bolo.* After the ſeparation of the Sloughs, I dreſſed it every other day with *Merc. præcipitat. Vigon.* repeated Purgatives, and preſcribed him *decoct. ſarſæ, & lign. guaiaci*, with Antiſtrumatick Plants, for to drink thrice a day, alſo *ceruſſa antimonii*, and ſome of the teſtaceous Powders, to be taken as often. During the application of Præcipitate and the milder Eſcaroticks, I made but ſmall progreſs: wherefore to haſten the extirpation of it, I applied a *troch. de minio* the whole length, with Doſſils ſpred with Lenients over it. At the next day's dreſſing I found the *troch. de minio* had made a great penetration into the Gland, but with exceſſive pain, inflammation and tumefaction of the Parts. I fomented it with Milk, dreſſed the Eſcar with Lenients, and applied an anodyne Cataplaſm *ex fol. malvæ, biſmalvæ, panis triticei*, &c. by which the Tumour relaxed, but thoſe *Strumæ* near the Ear appeared bigger; which foreſhewed the danger of proceeding farther with Eſcaroticks of Sublimate. I embrocated them with *valentia ſcrophulariæ*, and haſtened the diſcuſſing and drying up of the inflowed Humour by a Fomentation of *ſummitat. abſinth. majoran. flor. roſ. rub. balauſt.* &c. During the ſeparation of the Eſcar there appeared daily an increaſe of a well-digeſted Matter, and after the Eſcar caſt off, the Matter iſſued out above and below under the Gland. The way to remove theſe *Sinus's* was to extirpate the *Struma*; which I preſently did, by rubbing it with the Cauſtick-ſtone and Oil of Vitriol interchangeably. After I had removed it, and wiped off the looſe Sloughs, I dreſſed the Eſcar with a mixture of *unguent. baſilic. & ol. lilior.* hot, and kept the Lips of the Ulcer dilated with Doſſils, then embrocated the Parts about, applying over all *empl. è bolo.* After the ſeparation of this laſt Eſcar, there appeared part of the *Struma* lying on one ſide, which I afterwards waſted by the application of Præcipitate and the Vitriol-ſtone, then leſſened the number of my Doſſils, and permitted the Ulcer to heal up; during which I repeated Purging, and adviſed Embrocation of the leſſer Glands. He was haſtened into the Country: but of late years I have ſeen him very well, and thoſe leſſer *Strumæ* waſted.

4. Obſervat of the like.

A young Gentlewoman, Scrophulous and full of fancy, came out of the Country with a large *Struma* on the right ſide of her Neck, lying under that *Maxilla*, not unlike that in the former Obſervation. It had been attempted in the Country ſuperficially, and healed up again, with the Skin adhering to it. She had conſulted ſeveral of my Profeſſion in the City, and was curious in the informing her ſelf how I would proceed in the taking it out. I offered to her the ſeveral ways propoſed in the method of Cure, but more particularly the way by Inciſion. She objected againſt that way, having (it ſeems) been told that it might prejudice that Eye. I, ſuppoſing ſhe urged it out of fear of having it cut, did not farther inſiſt upon it: for indeed the very propoſal of cutting generally frights people from us. Some time after ſhe took a Lodging near me. I began the work by the application of a Cauſtick the full length of the *Struma*, divided the Eſcar, and fill'd it up with *Merc. præcipitat. Vigon.* then embrocating the Parts about *cum ol. roſ. & aceto*, I dreſſed the Eſcar with *unguent. baſilic.* and applied *empl. è bolo* over all, repeating this way of dreſſing every third day, and fomenting it with *decoct. abſinth. flor.*

flor. ros. rub. balaust. bacchar. myrtill. nuc. cupress. After the Escar separated in the middle, I thrust in a *troch. de minio*, and dressed it up as aforesaid. The next day she complained of her ill night's rest, and shewed me the Tumour and Parts about inflamed and swelled. I fomented them with Milk, dressed them up with Lenients, and let her bloud in the Arm. The next day I purged her with an *infus. senæ, rhab.* &c. and afterwards with a cathartick Apozeme. Which method ought to have preceded, if she would have admitted it. As the Sloughs cast off, I strewed in Præcipitate, and touched it sometimes with a Vitriol-stone. Having thus penetrated under part of the *Struma*, I raised that part up, & thrust it out in pieces with a round-pointed Knife fitted to that purpose, then dressed up the remaining *Struma* with the milder Escaroticks. From the time I applied that *troch. de minio*, she complained that her right Eye was less than the other, and was so possessed with the thoughts of it, that I was glad to refer it to the judgment of what Physicians she pleased. Whereupon Dr. *Glisson*, Dr. *Tho. Cox*, Dr. *Staynes*, and Dr. *Walter Needham* were consulted. By this her Surmise I had the honour to have my work approved by so many knowing persons, and she was the more encouraged to admit of my proceeding. The Cure was effected afterwards in the space of 3 weeks to her satisfaction: yet she would not be disswaded but that Eye was less than the other. About a year after I saw her again in the Town, and felt a small Gland of the bigness of a Lupin lying lower on that side of her Neck. I would have perswaded her to admit of a resolvent Emplaster, and to be touched: but she did not (as she said) believe it to be the *Kings-Evil*.

5. Observat. of *Strumæ* extirpated by Caustick.

A person of about 19 years of age had many *Strumæ* on both sides of her Neck, one especially very large on the left side, reaching from her Ear downwards, of an oval figure. The extirpation whereof having been attempted in the Country by Knife and Escarotick unsuccessfully, she was brought to *London*, and put into the hands of Dr. *Walter Needham* and my self. The Physician began with the purging her by this: ℞ *tamarind.* ʒß. *fol. senæ* ʒiij. *rhab.* ʒj. *sem. coriand.* ʒß. *infund. in aq. font. q. s. ad* ʒiiiß. *add. mannæ opt.* ʒvj. *syr. de spin. cervin.* ʒß. *aq. menthæ* ʒß. *Misc. & fiat potio mane sumend. cum regimine.* She was afterwards frequently purged with this: ℞ *rhab. senæ, an.* ʒiij. *hermodact.* ʒß. *zinziber.* ʒiij. *passular. exacinat.* ℔j. *Misc. S. A. & fiat sacculus pro* 3 *congiis Alæ recentis.* There was also prescribed her as followeth: ℞ *lign. guaiaci* ʒij. *cort. ejusdem* ʒj. *sarsæ, sassafr. an.* ʒij. *Chinæ* ʒiij. *infund. & coquant. in aq. font. q. s. ad* ℔ix. *deinde rad. scrophular. maj. filipend. an.* ʒiij. *passul. maj.* ʒij. *glycyrrhizæ* ʒj. *coletur pro potu ordinario.* ℞ *olibani, matricariæ pulv. subt. an.* ʒj. *sacchari alb. cryst allin.* ʒij. *Misc. & fiat dosis una mane, & altera horâ quartâ pomerid. in cochlear. decoct. superscript. & superbibat haustum, quartâ quoque nocte capiat pil. stomach. è gum.* ʒij. *in* 4 *pilulis, pergat ad* 20 *dies.* After her Body was thus prepared, we designed to have taken out the *Struma* by Incision: but it lying deep, and the upper part of it being grown to the Skin by reason of the former attempts, we applied a Caustick according to the length of it, defending it from spreading. The Escar being made as we designed, I divided it, and began to raise it off, with intention to take out the *Struma:* but she growing impatient of the smart, I rubb'd deep into the body of it with a Caustick-stone, and fill'd that Escar with *Merc. præcipitat.* applying Pledgits of *unguent. basilic.* over it; then embrocating the Parts about *cum ol. ros. & aceto*, dreſt it up with *empl. è bolo*, Compress and Bandage. The 4. day we opened it again, and repeated the use of the Caustick-stone & *ol. vitrioli* interchangeably, penetrating thereby deep every way into the *Strumæ*; then dressed it up with Lenients as before. By this way of dressing we eradicated the *Struma*; and afterwards, by rubbing it with the Vitriol-stone here or there where any

little relique of it appeared, and dreſſing it with Doſſils dipt in *Merc. præcipitat.* we digeſted it. I being then obliged to a journey into the Country, left the finiſhing the Cure to my Kinſman *Jaques Wiſeman*, who, by leſſening the Doſſils gradually, permitted the Ulcer to heal within, and by Epuloticks and Bandage brought the Lips to unite; ſo that at my return I ſaw it cicatrized ſmooth and narrow, and the *Struma* totally eradicated. The other *Strumæ*, which had been big, ſeemed alſo well-nigh reſolved: yet upon the cicatrizing that Ulcer ſhe was ſeized with an *Eryſipelas* on her Head and Face, which ſwelled them extraordinarily; but by purging the Phyſician removed that.

6. Obſervat of a *Struma* extirpated by Cauſtick.

A young Gentlewoman about 18 years of age, having been long diſeaſed with a *Struma* on the left ſide of her Neck, reaching from her Ear down under her Jaw, and frequently ſubject to Catarrhs, and ſometime Coughing of bloud; I began the extirpation of it by the application of a Cauſtick the whole length of the Gland. In dividing the Eſcar there diſcharged a ſmall quantity of an albuginous Matter. After the ſeparation of the Eſcar, a Cheeſie ſubſtance came away, and the Gland lay hard underneath. I fill'd the Abſceſs with Præcipitate, and kept the Lips dilated with Doſſils, repeating this method of dreſſing her every third day: during which Doctor *Micklethwait* was conſulted, and preſcribed Internals accordingly as he ſaw her obſtructed. He met with many difficulties in the removing thoſe various Diſtempers ariſing from the acid quality in her Bloud, it diſſolving her Fleſh, and threatning a *Maraſmus*. By the continued uſe of the Præcipitate the ſtrumous Fleſh ſeemed to me conſumed, and the Ulcer well diſpoſed for incarning: when one day in dreſſing her I beheld a ſmall white Bleb of fleſh in the middle of the Ulcer, and preſſing upon it with my Probe, penetrated deep into it. I pull'd out the Probe again, and bending it paſſed it into the ſaid *Sinus*, and thereby diſcovered it hollow both above and below: by which it appeared I had incarned upon a falſe foundation. I paſſed a Director into the ſaid *Sinus*, and laid it large open the whole length. The work was neither painful nor bloudy. I fill'd up the *Sinus* with Doſſils, rubb'd the ſpongy Lips with the Vitriol ſtone, and covered the Ulcer with Præcipitate, keeping the external Lips dilated as at firſt I had done. By the repeating this method the ſtrumous Fleſh was conſumed, and the Ulcer ſmoothly cicatrized. But about a month after there appeared a Swelling in the ſame Part, to the great diſturbance of my Patient: but it was only a Flatulency, which I ſoon diſcuſſed by the application of Diſcutients. From that time ſhe hath been free of that Malady. She continued longer under the Phyſician's care, and at length, by his endeavours and the freſh Air, ſhe recovered her health and ſtrength, and is ſince a happy Mother.

7. Obſervat. of a ſtrumous Tumour above the right *Scapula*.

A Man of about 30 years of age, of a tolerable good Habit of body, came to me with a ſtrumous Tumour a little above the right *Scapula*. It had been of a long continuance, and ſome years before it had ſuppurated, and was opened by ſome neighbouring Chirurgeon: but he not throughly eradicating it, it grew again, and was very large, the Skin adhering to the upper part of it. I applied a ſtrong Cauſtick on it; which having penetrated deep into it, I divided the Eſcar, and applied *troch. de minio* to it, then dreſſed it up with Lenients. After the ſeparation of this latter Eſcar, I rubb'd it with a Cauſtick-ſtone under the edges of the firſt Eſcar, and into the *baſis* of it, and interchangeably preſt into the body of the Gland with *ol. vitrioli*; then wiping away the looſe Sloughs and bloud, I fill'd it up with *Merc. præcipitat. Vigonis*, and dreſſed it with Lenients. After the ſeparation of theſe Sloughs, I thruſt out pieces of the ſtrumous Fleſh with the end of a *Spatula* ſomewhat bended and ſharpened to that purpoſe. Thus I extirpated this great body of the Gland,

and

and by the use of the Vitriol-stone and Præcipitate I deterged and cicatrized it smooth; and so it remaineth to this day.

8. Observat. of *Strumæ* and *Sarcoma* extirpated by Caustick.

A Maid aged about 18 years came recommended to me out of the Country with a cluster of *Strumæ* lying behind her left Ear, along the *Musculus mastoïdes*, down to the Clavicle. She had also a *Sarcoma* on the inside of her left Ancle. Sir *Fra. Pruj.* prescribed her a Course of Physick, by which her Body being prepared, I began with the extirpation of the *Strumæ* by the application of a Caustick from the uppermost part near the Ear downward, making the Escar about half an inch broad, then dividing it fill'd the Ulcer with *pulv. sine pari* of Sir *Alex. Fras.* and applied Lenients over the Escar with *empl. è bolo.* The next day I stuped the Tumour with *decoct. malvæ, violar.* &c. and dressed it up with Lenients, continuing that way of dressing till the Slough which was made by the *pulv. sine pari* separated: then drawing the Lips wider open, and finding that I had penetrated into the body of the *Strumæ*, and that some of them lay loose, I passed in my bended *Spatula*, and thrust part of the Cluster out, some in pieces, others whole in their *Cystis*. That done, I wiped away the bloud, and fill'd the Cavity with *Merc. præcipitat.* applying Dossils of Lint and Lenients over all. By this method of dressing I extirpated the *Strumæ*, and disposed the Ulcer to cure. During this I began with the Tumour on the Ancle, and having applied a large Caustick upon it, I made an Incision into it, and discharged a bloudy *Serum* in some quantity: yet the Tumour did not sink. I fill'd up the Incision with *troch. de minio*, and dressed the Escar with Lenients, *empl. è bolo*, and Bandage. The fourth day after I took off Dressings, and, finding all well, repeated the application of Lenients, to hasten separation of the Escar; which in few days cast off, and the fleshy body within appeared to be a *Sarcoma*. I fill'd it with Sir *Alex. Fras.* his *pulv. sine pari*, and dressed it again as before with Lenients, Compress, and good Bandage. These fleshy Tumours were not of so acute sense as the most sorts of *Strumæ* are, but more difficult to extirpate, by reason of the many Veins and Arteries which brancht through the body thereof, and render'd it apt to bleed, and increase faster than I could take it down by Escarotick powders. Upon which consideration I proposed the actual Cautery: but that not being admitted, I made up some Trochisks *de minio* with a double quantity of *Merc. sublimat.* in the form of Tents; and as the Escars separated in any part thereof, I thrust in a Trochisk, which always caused the bloud to burst forth: but by the application of the *pulv. sine pari* with Dossils dipt *in albumine ovi*, with good Compress and Bandage, I stopped it. By this method I made way deep into the body of it: yet between the Trochisks and in the circumference it did rise upon me; which put me upon a necessity of using the Caustick-stone and *ol. vitriol.* The use of these several Escaroticks caused excoriation in the neighbouring Parts, which obliged me to dress them the oftner with Refrigerants, *unguent. alb. camphorat.* &c. Having thus extirpated the *Sarcoma* near its *basis*, I left off the use of the Trochisks, and for some days applied *pul. sine pari Jo. Ardern.* it being more powerfully drying, and less corrosive; then applied a *Malagma* of *Celsus* in the form of a Cake round over it, with Compress, and laced on a streight Sock, to keep all fast. After I had thus wasted the *Sarcoma*, I dressed it with *Merc. præcipitat. unguent. tutiæ Vigonis*, &c. and by the help of the Vitriol-stone, *aq. calcis*, and the like, I smoothed and cicatrized the Ulcer. That of her Neck curing some weeks sooner.

9. Observat. of *Struma* with a *fungus* of an Artery.

One about 11 years of age, of a sickly Constitution, was brought by her Friends to Sir *Fra. Pruj.* He consulted me in the extirpating a Strumous Tumour upon the *Aspera arteria*. It was composed of many several Glands, in the middle whereof one lay much more protuberant, of the bigness of a Hand-ball.

ball. It was to my judgment Atheromatous, but ſomewhat more tenſe; and I thought I felt Pulſation in it, but ſo ſmall, that I doubted whether it were not rather in my fingers: however, I deſired a Chirurgeon might be conſulted; who accordingly was fetched, and concluded it an *Atheroma*. We agreed in the opening it by Cauſtick, and by eradicating that to make way for the remainder. After the application of the Cauſtick we met again, and ſeeing the Eſcar almoſt large enough to take out the Tumour whole in its *Cyſtis*, we divided it, and began with our Knives to ſeparate it: but the Child feeling it ſmart, and the bloud trickle down, it hinder'd our farther proceeding that way, ſo that we only cut off the looſe Eſcars, and dreſſed it up with Lenients. The third day Sir *Fra. Pruj.* met us there as we were taking off Dreſſings. The *Cyſtis* appeared to me the thickeſt and ſtrongeſt I had ever ſeen. I could not think it was made to contain an Atheromatous Matter. I felt it again, and was contented to believe the Pulſation I there felt might be in my fingers end; however I reſolved to preceed warily; and to that purpoſe made a Puncture into it with a *French* Lancet, upon which a florid bloud trickled forth. The Apertion being ſmall, it ſtopt by the application of *pulv. Galeni cum album. ovi*, and we left her. The next day the Chirurgeon and my ſelf met, and, conſidering the *Cyſtis* being diſroabed of her natural Tegument, the Skin was not like to be re-inveſted with it again, we propoſed to proceed timely in the preventing an effuſion of bloud. The way we deſigned was by Eſcaroticks, *viz. pulv. ſine pari.* The next day we took off Dreſſings, and covered the *Cyſtis* with the foreſaid Powder, applying Reſtrictives over all the Part, it being incapable of ſtrict Bandage. Againſt the next eruption we provided all things ready, both actual and potential Cauteries; yet with conſideration not to dreſs her till we were neceſſitated. The ſecond morning after we were both called early out of our beds by a meſſenger, telling us ſhe had bled the moſt part of the night. We diſpatched our Servants away to prepare Dreſſings, and haſtened after, and taking her out of her Bed placed her in a Chair. I ſtood behind her to hold her ſteady, and had one Servant near me with a Diſh wherein were ſeveral Eſcaroticks, ſome ſtronger than other, alſo of different ſizes and ſhapes. My brother Chirurgeon had his Servant near him attending the actual Cauteries in the fire. In taking off the Dreſſings, the bloud burſt forth with ſuch a guſh as gave no leiſure to call for an actual Cautery, nor was there poſſibility of uſing it with any advantage. I preſently thruſt in a piece of *Merc. ſublimat.* and preſt a *Paſtillus* of *Celſus* cloſe upon it, and held it ſo with my hands; which ſtopt the bleeding in a moment. I held my hands on it till we judged the Eſcarotick had ſecured the bleeding: then they cleanſed the Parts about with a Sponge, and refreſht the Patient with a draught of a cordial Julep: after which the Reſtrictives were applied one over another over her Throat, up both ſides of her Neck. I kept my hands upon them till they were dried faſt on. Then we put her on a Crevat, and laid her again in bed. It did not bleed; but ſhe complaining daily of pain more and more, we agreed to dreſs her the fourth day. I attended then with our Servants, preparing our Dreſſings, to ſtop the bloud and heal the Excoriations. My Copartner not coming, I took off Dreſſings, with deſign only to dreſs the Excoriations: but they came all off together, bringing with them a very thick Eſcar. While I was looking upon the *Fungus*, I ſaw the bloud riſe out of it in many places, as if it had been pricked with a Lancet. Thoſe drops immediately inlarged their way, and bled forcibly in ſo many Streams. At firſt ſight of it I applied a piece of *Merc. ſublimat.* The bloud burſt forth between my fingers a while; but upon the applying a proportionable Paſtil over the Sublimate the bleeding ſtopt. Whilſt I continued my hands upon it, my Servant

Servant wiped away the bloud, and dreſſed the Excoriations with *unguent. alb. camph.* &c. and applied the Reſtrictives over all as before: which being dried on, a Crevat was put on, and ſhe placed again in her Bed. From this Dreſſing I grew confident of ſucceſs, the former Eſcar appearing extraordinarily thick and large, as well it might, conſidering the Cauſtick, (which was ſuch as I would not adviſe to uſe in any caſe where there may be the leaſt hopes to ſave their lives without it.) Where the Opening is ſmall, a Finger may ſtop the bleeding of an Artery: but in a *Fungus* ſo branched, in a place ſo incapable of Bandage, what could have reſiſted ſuch a guſhing forth of bloud but *Merc. ſublimat.* whoſe force is far more penetrating in ſuch *Fungi* than a hot Iron? eſpecially conſidering how the bloud would have dulled it by the way. The uſe of the Sublimate this ſecond time cauſed a Fainting and Palpitation of her heart: in which caſe Sir *Fra. Pruj.* came again, and aſſiſted us by his Preſcriptions; yet it terminated in a *Ptyaliſmus*. The fourth day after this we met all together, and took off her Dreſſings, whereupon was ſeparated a thick white Eſcar; the remaining body appearing like a glandulous Fleſh, ſomewhat hard, and of the bigneſs of a ſmall Cheſnut. It bleeding no more, we dreſſed it with ſome of the milder Eſcaroticks, and the Excoriations with refrigerant Epuloticks, with Emplaſters of *diachalcit.* &c. we waſted that *Fungus*, and alſo healed the Excoriations in the ſpace of 3 weeks. There was a fair opportunity of extirpating the remaining Glands: but the Relations ſuſpecting perhaps that new miſchiefs might happen from ſome branches of the ſame Artery, we cured this Ulcer, and left the extirpation of the other to farther conſideration.

10. Obſervat. of *Bronchocele.*

A Maid aged about 30 years, of a tolerable ſtrong Conſtitution, came to me with a complicated Tumour lying on the left ſide of her Neck, from her Ear to the *Aſpera arteria*, and ſo ſtretching over it upward to the other ſide of the Neck. It was ſoft, and ſeemed to be full of Matter, but without Inflammation. I made a Puncture into the body of it, and diſcharged a ſtinking *Serum* not unlike Horſe-piſs. That being let out, the Tumour ſunk, and felt unequally hard. I dreſſed it up with a Pledgit of *unguent. baſilicon* and *empl. diachalcit.* The next day, taking off Dreſſings, and ſeeing the Swelling lank, I applied a Cauſtick the length of two inches, about 3 fingers breadth diſtant from the Ear: the Eſcar I divided, and diſcharged a foul Matter, and afterwards dreſſed it up with Doſſils dipt in *Merc. præcip.* with Lenients over the Eſcar; and from that time haſtened the falling off of the Slough. After the ſeparation of it, I thruſt out a different ſort of Matter, not unlike that of an *Atheroma* and *Meliceris* mixt together. I paſſed in my Probe-ſciſſors, and laid it open downward to the *Aſpera arteria*, and pull'd out with my fingers ſeveral *Veſiculæ*, ſome containing a foul *Serum*, others a gritty ſubſtance. There alſo came away gobbets of Fleſh, with which the *baſis* of the Abſceſs ſeemed to be covered. Having thus cleanſed it, I fill'd it up with Doſſils dipt in Præcipitate, and kept the Lips dilated; repeating this method of dreſſing every other day, and rubbing the ſtrumous Excreſcences with the Vitriol-ſtone. The *Sinus* contracted narrower within; but the original of this Tumour being Strumous, it would not heal whilſt there remained any hollowneſs, but fill'd with that ſort of Fleſh, and raiſed a Tumour. Upon ſight whereof I applied a Cauſtick upon the upper part towards the Ear, and divided it with a pair of Sciſſors, then fill'd the *Sinus* with *Merc. præcipitat.* dreſſing the Lips of the Ulcer with Digeſtives. After the Eſcar ſeparated, I applied my endeavours to eradicate the ſtrumous Fleſh with the Vitriol ſtone and Præcipitate, and cicatrized it from the Ear downwards; yet not without ſome difficulty, the *baſis* proving falſe more than once in one part or other. Some of this ſtrumous Fleſh

riſing

riſing amongſt the Veſſels, and uniting over them, made *Sinus's* ſo deep, that I much doubted how to divide thoſe without danger of theſe Veſſels: but there being no Cure to be expected whilſt this remained, I paſſed a Ligature with a ſmall Probe under the *Fungus*, and by Deligation of it, and application of Præcipitate, I conſumed the *Fungus*, and laid the deepeſt of them open; and afterwards by the application of Epuloticks brought a *Cicatrix* upon them. Having thus well-near healed the Abſceſs to the *Aſpera arteria*, I laid the other ſide open, and eradicated that part by the ſame method as the former, and cicatrized it ſmooth.

11. Obſervat. of *Bronchocele.*

One of about 14 years of age came out of the Country recommended to Sir *Alex. Fraſ.* with a complicated Tumour of a great bulk on the left ſide of her Neck and Cheek, ariſing under her Ear. It had been growing many years, and was without Inflammation. Her Body being prepared by a purging Apozeme, and Antiſtrumaticks preſcribed by her Phyſician, he commended the extirpation of it to my care. Accordingly I met him at her Chamber. We deſigned the taking it out by Inciſion; and to that purpoſe, having all things ready, I made Inciſion into it. But the bloud trickling faſt down, we forbare the Operation that time, and dreſſed it up with Aſtringents. The ſecond day after we met again, and in taking off the Dreſſings ſaw it had not bled, nor was there any Pulſation to be felt in it whereby we might ſuſpect any conſiderable flux of bloud. What did flow proceeded, as we ſuppoſed, from ſome ſmall *Fungus*. Upon which conſideration we reſolved to eradicate this preternatural Tumour by Eſcaroticks; and began with the application of a ſtrong Cauſtick on the middle of it, according to the length of the Tumour. The next day we divided the Eſcar, and filling it full of his *pulv. ſine pari*, I embrocated the Parts about, and dreſſed the Eſcar with *unguent. baſilic.* &c. By the application of this Powder we penetrated into the body of the Tumour: and after ſeparation of the Sloughs, ſeeing no danger of its bleeding, we repeated the uſe of the *pulv. ſine pari*: and having thereby diſcovered the Tumour to conſiſt of many ſeveral Species, *viz. Strumæ*, *Atheromæ*, *Meliceris*, and *Steatomæ*, we laid it more open by Inciſion, and with a crooked *Spatula* and our fingers pull'd out ſome of them in pieces, others whole in a Cluſter, then fill'd it again with the ſaid Powder, and dreſſed the divided Lips with Doſſils ſpred with Digeſtives. By this method we eradicated this great body: but in our approaching near that part of her Cheek which had bagg'd ſo long time between her Jaws, we found it penetrated, and the Liquor ſhe took in her mouth diffuſing it ſelf into the Abſceſs, alſo the Matter made in the Abſceſs diſcharging it ſelf into the Mouth. Whether this Opening was made by the Teeth, or fretted by the acrimony of the Humour within, I ſhall not diſpute; but it contributed much to the forwarding of the Cure there: for by Injections deterſive and drying we cleared that part of the Ulcer, and cicatrized it with the external part of the Cheek ſo cloſe, that her Jaws were at liberty to chew her meat, which they had not been in a long time before. The laſt difficulty was, in eradicating that part which lay in a manner round under the root of the Ear, threatning the very Organ. We laid it open, and by the milder Eſcaroticks at length eradicated the *Struma* there without offence to the Organ, cicatrizing it ſmooth the whole length of the Ulcer, by bringing the Lips together within a narrow *Cicatrix*, to the ſatisfaction of her Relations. During the application of ſome of theſe Eſcaroticks, ſhe was ſubject to a *Palpitatio cordis*, and did ſomewhat ſalivate; but was therein relieved by Sir *Alex. Fraſer*'s Preſcriptions, and reſtored to perfect health, which I have lately heard ſhe yet enjoyeth.

A Youth

A Youth of about 10 years of age was brought out of the Country to me with a ſtrumous Ulcer on one ſide of the Sagittal Suture. It was hollow the compaſs of a Half-crown; and had diſcharged its Matter, and fill'd up again with ſtrumous Fleſh. I applied a Cauſtick on it, and after ſeparation of the Eſcar conſumed the *Strumæ* with *Merc. præcipitat.* then cicatrized it with *unguent. è calce* and the Vitriol-ſtone. 1. Obſervat. of an Ulcer on the Head.

A Lady brought her only Son to Town, who was about 7 years of age, of a ſickly weak Conſtitution, obſtructed internally with the *Kings Evil* in his Meſentery and Lungs. He had externally many *Strumæ* under his Jaws, from his left Ear down to his right Jaw. Some of them were bigger than others, and ulcerated; one whereof had made its own way out, was grown callous, and lay protuberant in the form of an over-grown Excreſcence. I deſired the aſſiſtence of a Phyſician: but the Mother would not, yet promiſed, if there were a neceſſity, ſhe would at any time conſult one. I began his Courſe of Phyſick with a Solution of *ſyr. de rhab.* in a Tincture of Sena, and preſcribed him a medicated Ale of *ſarſa, lign. lentiſc. Chinæ, raſ. eboris, rad. ruſci, ſcrophul.* &c. with *millepedes.* I dreſſed the ulcerated Glands with *unguent. baſilic.* and Præcipitate: and after Deterſion with *unguent. diapomphol.* to the other Glands, which were hard and intire, I applied *empl. diachyl. ireat.* as it is ſet down in the method of Cure. During which application, I purged him again, and with a few grains of *diagrid.* and *Merc. dulc.* vomited him once: it worked churliſhly with him. That night I ſent him ſome of the anodyne Syrup to take in a draught of Mace ale; which quieted the Ferment raiſed by the Phyſick. From that time I purged him with Infuſion of Rhubarb in his medicated Ale once a week, giving him 7 or 8 grains of *Calomel.* the night before he drank his Rhubarb: the intermitting days he took one of the teſtaceous Powders preſcribed in the method of Cure. The callous *Struma* I rubb'd down with the Cauſtick-ſtone, and after ſeparation of the Eſcar I deterged with the Vitriol-ſtone, and ſometime *Merc. præcipitat. rubr.* The ulcerated *Strumæ* digeſted well, and as the Glands waſted, the Ulcers cured. To the other Glands not ulcerated I applied a *Malagma* of *Corn. Celſus*, by which they viſibly reſolved. Whilſt I proceeded in this method, Dr. *Micklethwait* was conſulted by the Mother, he being her Phyſician. He ſaw the Patient in this thriving condition, and, I think, preſcribed him only a cordial Julep. The Winter approaching, I ſupplied the Patient with Dreſſings and internal Remedies, ſhewing his Maid how to apply them, and directed her how to regulate the Patient. The Cure of theſe Diſeaſes is the work of time: for till the internal *Viſcera* be freed of the *Strumæ* which generally they are ſtuft with, the external Cure of them ſignifieth little. They returned into the Country, and the Child enjoyed a good meaſure of health till about *Chriſtmaſs*, and then the Matter fermented again internally and externally, that Air diſagreeing with him: upon which account they returned back to *London* early in the Spring, and ſent for me again, and, I think, for Dr. *Micklethwait.* The Child was put into much the ſame Courſe of Phyſick as before. I alſo digeſted the Ulcers, and proceeded as I had done the laſt year: the Child accordingly recovered, and enjoyed a good health. His Maid being grown skilful in dreſſing him, I viſited him the ſeldomer, yet ſent my Servant oftner: for, as I have ſaid, his Cure did not conſiſt in the healing theſe *Strumæ*; yet they were in a good condition, and not at all painful, unleſs it were ſometime when I uſed the Vitriol-ſtone and Præcipitate together, which was ſeldom. He being well recovered, returned into the Country towards Autumn, and came up the Spring following indiſpoſed with a Catarrh and 2. Obſervat. of Ulcers about the Chaps.

other Diſeaſes in his Bowels; but ſoon recovered here, whereas the Northern Air was too ſharp for his tender Body. During the time I attended him, he was as much grown and improved in his health as ever I ſaw any, and the *Strumæ* that were remaining were few, and much diminiſhed: the *Malagma* of *Celſus* put them upon a Suppuration whenſoever it was applied; and I always permitted the Matter to make its own way out by ſmall Eruptions: during which I ordered them to be dreſſed with Lenients, *viz. unguent. diapompholyg. tutiæ*, or ſuch like, till the Matter was diſcharged; after which I applied the *Malagma* again, to put the remainder upon Suppuration. This way I ſhewed his Maid, and by theſe interchangeable Applications they did reſolve. The Mother did not this laſt time conſult Dr. *Micklethwait* nor my ſelf in Phyſick, but imployed ſome other ſecretly. Upon notice thereof I viſited them leſs, and told the Mother, that where I did not preſcribe the Phyſick, or was conſulted with the Phyſician, I did not deſire to be the Chirurgeon, the Cure depending moſt upon the internal Preſcriptions. Some weeks after, viſiting the Patient, I ſaw one of the *Strumæ* thruſting out of the Skin in a *Fungus*. I would have thruſt it more out, tied a Thread under it, and have ſnipt it off with a pair of Sciſſors: but he crying, I dreſſed it up with Præcipitate. At my next viſit I met a Chirurgeon there, and preſented the caſe of the Patient to him, with my way of proceeding. He ſaw me dreſs the Ulcers: they were but few and ſmall. He declared the way had been rational, and that ſuch Diſeaſes did require time to perfect them.

3. Obſervat. of Ulcers in the Neck, and an *Atheroma* in the Arm.

A young Gentleman, aged about ten years, was diſeaſed with many *Strumæ*: ſome whereof lay under his Jaws and the ſide of his Neck, ſtretching down from the one Ear to the other; ſome of them lay intire in their *Cyſtis*; others were ulcerated, and paſſed their Matter into one another: they were fordid in ſome parts, and overgrown with looſe Fleſh in others. He had alſo an *Atheroma* on the outſide of one of his Arms about three inches in length, reaching to the Elbow-joynt. Sir *Alex. Fraſer* was his Phyſician, and put him into my hands. He purged him with an Infuſion of Sena, Rhubarb, *&c.* and preſcribed him a *decoct. ſarſæ*, &c. with Antiſtrumaticks. I began with the application of a Cauſtick on the *Atheroma*, laying it open the whole length, and gave vent to an albuginous and cheeſy Matter; then dreſſed it with Lenients, to haſten ſeparation of the Eſcar. I alſo laid open the Sinuous Ulcers in his Neck, ſome by Cauſtick, others by Probe-ſciſſors. Thoſe Ulcers which were fordid I dreſſed with *Mercur. præcipitat.* rubb'd the luxurious Fleſh with the Vitriol-ſtone, and kept the inciſed Lips dilated with Doſſils ſpred with Digeſtives. Whilſt I deterged thoſe ſeveral Ulcers, I endeavoured reſolution of the leſſer *Strumæ* by the application of ſome of the Diſcutients propoſed in the method of Cure. During theſe proceedings in Chirurgery, Purgations were repeated, with the addition of *Calomel.* and on the intermitting days *ceruſſa antimonii*, &c. were preſcribed; and thereby the Ulcers were diſpoſed to a healing condition. The *Atheroma* on his Arm I endeavoured to digeſt with various Medicaments: but whilſt any part of it lay hollow, it would neither digeſt nor deterge: but after I removed its Coverture, it digeſted and incarned with *mundif. Paracelſi*, and cicatrized as the other did by the common Epuloticks.

4. Obſervat. of Ulcers on the Neck.

A perſon about 28 years old, having been long diſeaſed with the *Kings-Evil* in many Glands on both ſides of her Neck, frequently apoſtemating with great tumefaction and pain, came to *London*, and conſulted me. Thoſe on the left ſide were then ſwelled from the Nuke down that ſide of the Neck and Cheek to the other ſide of the *Trachea arteria*. Whilſt ſhe was in the Country, that Gland near the Nuke apoſtemated, & was opened by a Chirurgeon there: but

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from that time it grew corrosive,& passed its Matter downward into the body of the Tumour amongst the rest of the Glands, and could not empty it self but as it overflowed. Upon which account I proposed the making an Opening in the declining part of the Tumour: but she, having been extreamly over-watched and tired with pain, took deliberation, and after a day or two sent to me to meet at a Consultation with one who pretends great matters in Chirurgery. I accordingly went: but he had been there before me, and, according to his custom, boldly undertook the Cure, promising to resolve it in ten days by the application of an incombustible Sulphur. I did not believe it possible to cure her without giving vent to the Matter below, but left the Patient at liberty to proceed with him, or any other. He began the next day with the anointing it with *balsam. sulphur. Rulandii*, and every day daubed more of his said Balsam upon the Swelling, till the ten days were passed. During which applications, the Matter being thereby choaked in, her pain increasing more and more, and she being no longer able to endure those applications, she sent for Sir *Alex. Fraser*, Sir *George Wakeman*, and my self. We saw the Tumour exceedingly increased, and crusted hard over with the Balsam. I fomented it with Milk, and embrocated it with fresh Butter: but it not yielding thereby, I applied a Cataplasm *ex fol. malvar. violar. sem. lini, pane tritic. axung. porcina*, &c. The next morning we met again, took off the Cataplasm, freed the Tumour of its crusted Coverture, and saw the same hard, dry, and much inflamed. We added to the former Cataplasm *mucilag. rad. althææ & lilior.* and applied it, thereby suppurating it; then opened it by Caustick in the declining part near the *Trachea arteria*, discharged a large quantity of digested Matter, and dressed it with Lenients. Whilst the Matter plentifully emptied it self there, the Inflammation and Tumour daily diminished, and the Ulcer above, which had been daubed close up with the *balsam. sulphuris*, appeared well inclined to heal, and cicatrized soon after by the applying of *unguent. tutiæ*. The accidents of Pain, *&c.* thus removed, the Physicians were again consulted; and hearing her still complain of a *Vertigo* and great pain in her Head, as likewise of an Inflammation of her Eyes, they prescribed her a purging Apozeme of *sena, polypod. hermodact. turbith* decocted with *sarsa, lign. guaiaci, santal.* &c. She was also purged with Cephalick Pills. *Calomel.* was also prescribed, and a *decoct. sarsæ*, with the specifick Plants, was her ordinary Drink. By these and such like Prescriptions she was freed of those various Distempers, and restored to a better Habit of body. The Tumour the while emptied it self by the depending Orifice, and several of the *Strumæ* which had been encompassed with in that Tumour appear'd again movable, and were afterwards totally resolved by the application of *Celsus*'s *Malagma*, and by the Apertion made by the Caustick cured perfectly. The *Strumæ* on the other side of her Neck, which seemed suppurated when I first came to her, did all save one harden again, (during her Course of Physick.) That one lay upon her Cheek near her Ear. I opened it, and thrust out a Cheesy Matter; then dressed it as aboveſaid with Detersives,& cured it. The Patient being thus happily recovered, I supplied her with a Rowl of *Celsus*'s *Malagma*, by which the remaining *Strumæ* were resolved or suppurated: and since that I have seen both sides of her Neck freed of that Disease. Yet she is still subject to some little Indisposition of body, enough to shew that there yet remain some seeds of that Disease in her *Viscera*.

5. Observat. of Strumous Ulcers on both sides of the Neck.

A Gentlewoman aged 34 years, of a sickly weak Constitution, subject to the *Kings-Evil* many years on both sides of her Neck, ulcerating, and the Ulcers passing their Matter one into another down to the Clavicles, had gone through long Courses of Physick, and had permitted divers Applications to be

made: but they proving unſucceſsful, ſhe put her ſelf into the care of Sir *Fra. Pruj.* and my ſelf. The Ulcers ſeemed to have riſen from ſo many diſtinct Glands, and that after Suppuration, the Matter, growing virulent, corroded under the Lips, and both rendred them Sinuous, and at length Callous, and conſequently not capable of Cure but by laying open. Yet I began with Digeſtives, and diſcutient and drying Fomentations. The Phyſician preſcribed lenient Purgatives, with the addition of *Calomel.* once in 4 or 5 days, and on the intermitting days *decoct. ſarſæ* with *antimon. diaphoret.* Theſe not anſwering our expectations, I proceeded in the laying open the Ulcers, and removing the callous Lips, there being not one that would cure till that was done. Afterwards they digeſted, incarned, and cicatrized from the edges firm and ſmooth, by the common method of dreſſing Ulcers.

6. Obſervat. of Strumous Ulcers in the *Axilla* and Arm.

A Citizen's Daughter, aged about 12 years, of a weak Conſtitution, had been long diſeaſed with the *Kings-Evil.* She had one Strumous Swelling on the right ſide of her Neck cloſe above the Clavicle, from whence to the *Os humeri* there ſeemed to be a more than uſual fulneſs. Under that *Axilla* lay an Ulcer, and another on the outſide of the ſame Shoulder, and others down all along to the Elbow, ſome of them ſordid. By ſearch of a Probe theſe Ulcers appeared to be ſo many Eruptions from the Sinuous Ulcer in the *Axilla.* I dreſſed them with Deterſives, *&c.* and preſcribed a *decoct. ſarſæ, Chinæ, lign. lentiſc.* with ſome of the antiſtrumatick Plants, *milleped.* &c. with which ſhe took *antimon. diaphoret.* and once in 4 days a few grains of *Calomel. cum pulv. rhab.* in the form of a *Bolus.* I embrocated the Gland near the Clavicle and the Swelling of the Shoulder daily with *valentia digitalis*, and endeavoured the Deterſion of the Ulcers with *mundif. Paracelſi*, Præcipitate, and the Vitriol-ſtone: but the Ulcer being Sinuous, (as I ſaid) it would not digeſt in any one part. The Fluxion increaſing greatly, and ſeeming to flow from that Ulcer in the *Axilla*, I laid it open: but that not ſerving my purpoſe, I cut open the upper part of the *Sinus* on the outſide of the Arm near the Shoulder, hoping that way to intercept the flux of Humour: but the Fluxion continuing, I began to ſuſpect the Matter flowed from the Strumous Tumour near the Clavicle; wherefore I opened it, and upon ſearch found the Matter did paſs from thence into the *Axilla*, and to the outſide of the Arm. I diſcharged the Matter, and eradicated that *Struma*: after which the Fluxion diminiſhed in the other Ulcers. That of the *Axilla* dried up ſoon after: the other alſo cured more eaſily, according to the method ſet down in Sinuous Ulcers, and ſhe recovered her perfect health.

7. Obſervat. of Ulcers in the Head, Neck, Lips *&c.*

A Woman came out of the Country with a diſeaſed Child of 2 years old She had brought many into the world, but they had been all lamentably diſeaſed, and died one after another. This was broken out all over the Head, and ulcerated in many places to the *Pericranium.* It had alſo a large white Tumour lying deep under the left Jaw to the *Trachea arteria.* I fomented the Head with a Decoction of Cephalick Herbs, *cum flor. roſ. rub. bacch. myrtill. balauſt.* in Wine and Water, and dreſt the Ulcers accordingly as they required, ſome with Digeſtives, others with Deterſives, and others with Epuloticks; and to the Tumour I applied Diſcutients. During theſe Applications I purged the Child once in 4 or 5 days, giving it 4 or 5 grains of *Calomel.* over night, and in the morning *ſyr. de rhab.* in medicated Ale of *ſarſa, lign. lentiſc.* &c. and the intermitting days *Bezoard. mineral.* Before I put her into this Courſe, the Humours were ſo acrimonious, that the leaſt ſcratch with a pin terminated in a corroſive Ulcer: but after ſhe had proceeded in this method a while, they all healed. So that there remained only the Tumour under the Jaw, which ſeeming full of Matter, I thought reaſonable to open: but ſhe having

having privately consulted some person, who, in consideration of its situation, thinking it dangerous, disswaded her from it, upon notice thereof I left them. But some weeks after, having tried other Endeavours unsuccessfully, she came to me again; the Child being broken out for want of prosecuting the former method of *Calomel.* &c. and also diseased with a Cough. I began with the opening of the Tumour, designing to do it by Caustick: but in consideration of the Prognostick which had been delivered of it, I made an Apertion with a Lancet, and passing in a *Cannula*, discharged a spoonful or two of a purulent Matter: which confirming my Judgment of the Tumour, I stopt it up with a Tent, applied a Caustick the whole length of it, and the next day divided the Escar, and gave vent first to a purulent Matter, then to an albuginous Humour. I dressed the Ulcer with Dossils spred with *mundif. Paracelsi*, and the external Escar with *unguent. basilic. cum ol. lumbricor.* After Detersion the Ulcer fill'd up with an *Hypersarcosis*, as all Strumous Ulcers are apt, and so render our labour vain. Therefore timely to prevent it, I dressed it with *Merc. præcipitat.* and kept the Orifice dilated with Dossils. While I was thus eradicating the *Struma*, I repeated the former method of Physick, and healed the several Ulcerations about the Head, Face and Lips. All things thus succeeding well, the Mother returned into the Country with her Child, unknown to me, (supposing it cured:) but she not taking Specificks with her to prosecute that method there, it languished and died, as I was afterwards informed.

8. Observat. of an Ulcer with *Caries in Cranio.*

A Child of about 3 years old had an Ulcer with *Caries* upon the right side of the *Os frontis*, close by the Temporal Muscle. It took its original from an *Atheroma*, as I suppose, (the Child having some *Strumæ* on his Neck.) The Bone lay carious the compass of half a *Guinny*. I took off the Lips of the Ulcer by Caustick, and dressed the Bone with Dossils prest out of *spir. vini*, to keep it dry till Nature should be disposed to make Exfoliation of its rottenness. For in this tender Child there was no talk of rasping, nor was there always liberty to put in my Dossils so close as I ought to have done. During this work the Child was afflicted with the Measils, and in the declination of them with a Cough, and such a discharge of Matter from his Lungs, that he grew thereby Hectick, and emaciated to skin and bone. The Lips of the Ulcer on his Head lay lank and dry, and the Bone as it were dead without moisture. He being thus weak, Dr. *Bates* was consulted, and declined the attending it, as coming too late to him. Dr. *Tho. Cox* was perswaded to take care of him, who prescribed Pectorals of various sorts, and advised the removal of him to *Knights-bridge*, where he drank Asses milk. Having there somewhat recovered, he was removed to a house near *Kings-Gate*, into back Lodgings looking into the Fields, for benefit of the Air, and more conveniency of Dressing the Ulcer on his Head. But upon the change of the Air he so relapsed in 2 days, that it was believed, if he had lain one night more there, he had died there. Upon which consideration he was again removed back to *Knights-bridge*, and there he daily recruited his spirits. As his strength recovered, the Lips of the Ulcer recovered their heat, and digested, the *Caries* of the Bone cast off, and the Ulcer contracted narrower. He afterwards removed farther off into the Country to his Parents: my Kinsman *Jaques Wiseman* attended him, and finished the Cure there.

9. Observat. of *Atheroma* with *Caries* on the *Cranium.*

A Child about 3 years old was brought by its Mother out of St. *Martin's-Lane* to me with a large soft Swelling upon the left side of the Head without inflammation. I, suspecting the Bone carious, applied a proportionable Caustick on it, and gave vent to a Matter not unlike Batter, and by search of a Probe felt the *Cranium* bare. I dressed it with Lenients, and after separation

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of the Eſcar ſaw the *Cranium* bare the compaſs of a broad Shilling. I dreſſed it up with *liniment. Arcei* hot, and the Lips of the Ulcer with *unguent. baſilic. magiſt.* The ſecond day I fomented it with a Decoction of *ſummitat. hyperici, origani, betonicæ, flor. roſ. rub. balauſt.* in Wine and Water, and dreſſed the Bone with Doſſils of Lint preſt out of *ſpir vini:* the Lips I dreſt with *unguent. diapomph.* touching them ſometimes with a Vitriol or Alume-ſtone. By theſe Applications the Bone incarned, united with the Lips of the Ulcer, and cicatrized from the edges round. During which ſome ſmall Speels of Bones caſt off, and the Ulcer cicatrized without much difficulty.

10. Obſervat. of an *Atheroma* with *Caries in Cranio.*

A ſickly Child of about 7 years of age was brought to me by its Mother out of *Drury-Lane*, having a large *Atheroma* between the Sagittal and Coronal Sutures. I, ſuppoſing the Bone carious, applied a large Cauſtick on it, and dividing the Eſcar diſcharged a crude *Serum*, and afterwards a curdled Matter. I felt the Bone carious round under the Eſcar, and dreſſed it up with Lenients: after the Sloughs caſt off, I dreſſed the *Cranium* with Doſſils preſſed out of *ſpir. vini*, applying them cloſe to the ſound Edges; the Exfoliation beginning always from the circumference. By which may be judged the ignorance of that man, who applied Lint dipt in Red wine over the middle of the Bone, leaving the Lips hollow. By this way of dreſſing, a *Callus* roſe from the ſound Edges, and thruſting off the *Caries*, united with the digeſted Lips of the Ulcer, and at length caſt off all the rotten Shell, and incarned and cicatrized firm by the method obſerved in the former Obſervation. I have ſince ſeen this Girl diſeaſed with many *Strumæ* in her Neck, and purpoſe to undertake her Cure when the ſeaſon ſhall be more proper.

11. Obſervat. of *Spina ventoſa in Cranio.*

A Woman of about 40 years of age, of a Plethorick Body, having been long diſeaſed with a pain in her Head on the right ſide, between the Sagittal and Coronal Sutures, it at length apoſtemated, and ſhe was put into my hands. I made a ſearch with a Probe, and feeling the Bone carious, opened it by a circular Inciſion, taking away ſo much of the Hairy-ſcalp as I judged neceſſary; then fill'd it with Doſſils of Lint, and applied over them Pledgits *cum albumine ovi & pulv. Galeni, empl. è bolo*, &c. The third day, taking off the Dreſſings, I ſaw the upper *Lamina* very white, dry and thin: it was corroded, and ſeemed chambered like unto that Fracture the *Greeks* call *Camaroſis*, or like ſome piece of old worm-eaten Timber. I dreſſed it with Doſſils preſt out of *ſpir. vini*, and the Lips of the Wound with a Digeſtive *ex terebinthina cum vitell. ovi*, &c. embrocating the Parts about *cum oleo roſ.* After Digeſtion of the Wound I deſigned the raſping away that thin Shell: but her pain ceaſing, it was deferred. About the tenth day ſhe was taken with a Fever. The Phyſician viſiting her, I dreſſed her Head, and offered to his conſideration the ſetting on a Trepan. But he concluded the Fever ſcorbutical, and no way related to the Ulcer *in Cranio*. But the Fever increaſed, and ſhe died. The Phyſician being indiſpoſed with the Gout, another was fetcht, who ſaw her opened. At the taking off the *Cranium*, the interiour *Lamina* appeared ſound, and the *Dura mater* unconcerned; nor was there any Bloud or Matter extravaſated between the Membranes or Ventricles of the Brain; but in the Lungs a great Stagnation. When this Matter affects only the interiour *Lamina*, the Patient generally dies before the Malady is diſcovered.

12. Obſervat. of a *Struma* with *Caries* in the *Os Zygoma.*

A little Girl was brought by her Mother to me with a ſoft Tumour, of the bigneſs of a Nutmeg, upon her left Cheek, on the *Os Zygoma*. She deſired me to undertake the Cure. But I, being at that time much indiſpoſed in my health, declined the medling with it, concluding the Bone carious, and that it was not ſo ſlight a work as ſhe thought. The Mother went from me to a Chirurgeon then in my Neighbourhood, who opened it, and took much

much pains in the exfoliating the Bone: but it growing more carious, he at length left the Parents at liberty to make choice of some other. They came to me again. I made search with a Probe, and felt the *Sinus's* running under the Bone towards the Eye. I dilated the Ulcer, and, seeing the Bone black, applied a Dossil pressed out of *spir. vini* on it, kept the Orifice open with a Dossil spred with a Digestive, and embrocating the Parts about *cum ol. ros. & aceto*, dressed it up with *empl. è bolo*. By this way of dressing the pain was mitigated, and the Ulcer digested. I continued the use of the Dossil with *spir. vini* to the Bone daily, and dressed the Ulcer with a Pledgit of *diapomphol.* By this very method the rottenness of the Bone soon shell'd off: after which, by lessening of the Dossils, I permitted the Ulcer to incarn, and by gradually leaving off the use of the Dossils, and dressing it with Pledgits of *diapompholyg.* it cicatrized firm in the space of three weeks, and continueth so to this day.

13. Observat. of strumous Ulcers with *Caries* in the *Os Zygoma.*

A person of about 26 years of age came to Town with an Ulcer in her Cheek penetrating high under the *Os Zygoma*: there was also an Ulcer near the external *Canthus* of that Eye. I supposed them to have coherence with one another, and by search of a Probe felt the Bones carious. Her Cheek had been much apostemated and blemished by their Chirurgery in the Country, and like to be made worse, if the Bones were that way to be exfoliated. Wherefore I considered to do it otherwise. The Teeth in that *Maxilla* were all sound and fast; yet I perswaded her to the pulling out of one under these Ulcers. She seemed to receive some advantage by it, the Ulcer mattering less for the space of 4 or 5 days: but both the Ulcers growing afterwards worse, and our hopes of Cure that way failing, I enlarged the lower Orifice, and rubb'd off the over-grown callous Lips with a Caustick-stone, and proceeded in the deterging and digesting the Ulcers. During which Dr. *Willis* was consulted: but upon supposition she might be with Child, she took little Physick. By dilating the inferiour Ulcer the uppermost closed up, that Matter discharging it self by the Ulcer beneath, but not without much disturbance, it threatning a *Sinus* down her Cheek. To avoid which, I caused an Instrument to be made whereby I cut between her Cheek and Jaw into the Ulcer to the carious Bone, and gave vent to the Matter. After I had thus laid open the *Sinus*, and wiped away the bloud, I dressed it with a Tent dipt in *syr. de ros. siccis*, and the external Ulcer on the Cheek with a Pledgit of *unguent. tutiæ*, and by Compression cicatrized that smooth and firm. The Ulcer within her Mouth growing offensive to her by reason of the fœtid smell of the Bone, put me upon the use of an Injection of *aq. ros. damasc. syr. de ros. siccis*, and a few drops of *tinctur. vitrioli* Felix wortz: by which the Ulcer deterged, and grew daily less offensive. I continued the dressing it with a Tent whilst any thing of Matter discharged. That ceasing, I omitted the use of Tents, and healed up the Ulcer, and so it is like to continue.

14. Observat. of an Ulcer with *Caries* behind the Ear.

A Child between 3 and 4 years of age, having been subject to soar Eyes, and an Abscess in one of its Ears, was brought to *London*, and commended to my care. The Matter at length made its way forth behind that Ear, and flowed in great quantity. Upon search I found the Bone carious. I began my work with Dilatation of the Ulcer by Gentian-roots; and after I had made way to it, I dressed it with Dossils pressed out of *spir. vini* and *unguent. tutiæ* upon Pledgits, or such like, accordingly as I saw occasion. Having thus disposed the Bone to Exfoliation, I purged the Child with *infus. rhab.* and afterwards with *Calomel.* once in 4 or 5 days, and prescribed *Bezoard. mineral.* also a medicated Ale, to take the intermitting days.

After some time, seeing the Bone continue firm, I dressed it with a mixture

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of *mel. Ægyptiac. pulv. myrrh.* &c. and thereby hastened the Exfoliation of the Bone. That being cast off, I designed to cicatrize the Ulcer: but perceiving the Eyes grow soar, I put a Pea into that Ulcer, and continued it a Fontanel; not thinking it safe to dry up the Ulcer behind the Ear, though the Child had before one proper for Derivation. The dressing this Ulcer was never very painful: but the Servant that attended the Child having accustomed her self to put it beside its Frowardness by threatning to send for me, it so terrified the Child, that it always cried at the very sight of me; upon which account I left her in the condition I have represented. She was long after diseased with soar Eyes from the acidity in her Bloud, but hath since outworn it.

From a *Caries* in the *Alveoli* Apostemations are frequently made externally under the Jaws; which being not unlike strumous Tumours, are by unexperienced people supposed to be such, and sent to us to be presented to his *Majesty*. Many Instances may be given you of this kind, if it were necessary: but they not being Strumous, I shall forbear, and present to you what is, *viz.* the protuberant Jaws. They are made hollow by an acid Humour, which fretteth and corrodeth the *Alveoli* and inner substance to the very external Shell; in which cases they thrust out with great deformity. I have made mention of this Disease under the name of *Spina ventosa*, and distinguished it from the *Caries* arising from an external Erosion by that name. When this affects the Jaws, the Teeth grow loose, and Excrescences do arise, which in progress of time thrust out the Teeth. They sometime discharge their Matter externally. But by pulling out those Teeth these Apostemations cure, and the Jaw having thereby vent for its Matter, the *Caries* will cast off insensibly by the force of Nature, and at length, if the Habit of body grow better disposed, a *Callus* fills up the void space in the Bone. But where Nature is deficient, we consume the *Caries* in them by detersive and drying Medicaments, or by actual Cautery: after which, if the Patient be young, he groweth out the Deformity.

15. Observat. of external Ulcers from a *Spina ventosa*.

A Child aged 9 years, having been formerly diseased with the *Rachitis*, and afterwards with the *King's Evil*, the left Jaw grew preternaturally big, and her Teeth in it rotten and loose: an Apostemation also had discharged it self externally under that Jaw in 3 several places. I caused some of those Teeth to be pull'd out, and dressed the Ulcer with a Tincture of Vitriol. I prescribed Internals, according to the method of Cure; then rubbing off the callous Lips externally with a Caustick-stone, and digesting them, they cicatrized without laying open or trouble in dressing, the Matter spending it self within, where it was not taken notice so much of.

16. Observat. of *Spina ventosa* in the left Jaw.

A Gentlewoman about 40 years of age, having been many years diseased with the *King's Evil* and a *Spina ventosa* in her left Jaw, put her self into my hands. She had formerly Apostemations under that Jaw externally; but the Matter having made its way out by loosening some of her Teeth, (which afterwards dropt out,) those Ulcers were in a manner healed up. The place where her Teeth had fallen out was fill'd with a putrid Flesh, which was very offensive to her by reason of the rottenness of the *Alveoli*. In this case there remained nothing to do, but to consume and dry up the corrupt Flesh and Bones; which I did by actual Cautery to the very end of the Mandible, laying it hollow like a Trough. I was troubled in my thoughts to see it so, suspecting it would prove an unthankful work, to leave such a useless Cavity: but it was done to save that Jaw. I dressed it up with Dossils dipt in a mucilaginous Decoction, and after Digestion with Dossils dipt in *spir. vini*, the sides of the Mandible were dried by the actual Cautery, and being thin, they cast off, and the Gum lay flat, and served her afterwards to chew softer food.

A Young

17. Observat. of *Spina ventosa* in the inferiour *Maxilla.*

A Youth about 15 years of age came to Town with a *Spina ventosa* in the inferiour left Jaw, the two fartheſt Teeth being thruſt out with a *Fungus* riſing in and about the *Alveolus*. It had paſſed its Matter externally on that ſide of his Neck and under that Jaw; alſo an Apoſtemation had been raiſed on the upper part of that Jaw externally near the inſertion of it, between the Ear and the Cheek, in which place the Bone was carious round. It had been laid open by a Chirurgeon in the Country, who deſigned the cutting it off. I rubb'd that Bone with *ol. myrrhæ diſtillat.* and kept the Ulcer dilated with Doſſils preſt out of *ſpir. vini.* The *Fungus* in the Jaw I conſumed with the actual Cautery, pulled out pieces of the corrupt *Alveolus*, and diſpoſed the reſt to caſt off ſoon after; then dried up the remaining *Caries* in the Jaw, and afterwards dreſt it with Doſſils preſſed out of *tinctura vitrioli.* Whilſt this was doing, I rubbed off the callous Lips of the external Ulcers by Cauſtick, opened their *Sinus's*, and diſpoſed them to ſpeedy cure. After the cicatrizing of the Ulcer in the Jaw, it lying hollow and ſubject to Excrements, I fill'd it with ſoft Wax. Having thus cured thoſe Ulcers, and exfoliated the greateſt part of the *Caries* on the external part of the Jaw near the Ear, I leſſened the Doſſils, permitted that Ulcer to contract proportionably, and ſupplied his Siſter with Medicaments and Directions to finiſh the Cure, and diſmiſſed him. It being the work of time, required a longer keeping open than conſiſted with their conveniency to attend it here.

18. Observat. of a *Spina ventosa* in the right inferiour *Maxilla.*

In the year 1672. I was conſulted by Letter out of the Country concerning a young Gentleman, whoſe Caſe I have here inſerted as it was ſent me.

Adoleſcens nobilis, 19 circiter annos natus, duobus abhinc annis correptus eſt gravi Dentium molarium dolore in Maxilla dextra, unde unius caries ſubſecuta eſt. Remittentibus doloribus, ſuborta eſt Glandula exigua (jam ferè evanida) in cuſpide externa Maxillæ ex adverſo denti primo vel ſecundo molari; exindè tumor Maxillæ indies auctus, qui videtur in ipſa ſubſtantia oſſea radicatus, nullâ exſiſtente vel Cutis ipſius vel Glandularum circumquaque prominentiâ manifeſtâ, cum dolore exiguo vel nullo Maxillæ, niſi cùm aſperiùs digitis tractata vel fricata fuerit. Ex adverſo latere circa eandem partem Glandula eſt exigua & mobilis. Tractatus eſt ab aliis Medicis cum Pilulis purgant. Mercurialibus, Diætis Scrophulas reſpicientibus, Antiſcorbuticis, & externis etiam Emplaſtris de ranis & ex ammoniaco, Fomentationibus, &c. ſine fructu. Veremur nè ex illo tumore pereat aliquid de venuſtate faciei Adoleſcentis.

Quærimus quibus modis vel curetur, vel ſaltem incrementum præcaveatur.

In anſwer to this, I adviſed the extracting of the carious Teeth, to make way for the diſcharge of Matter, and propoſed Remedies to conſume the rottenneſs in the *Maxilla.*

About half a year after the Patient was brought to me by his Uncle Mr. *Tho. Chol.* He had then a *Spina ventoſa* or *Exoſtoſis* very large upon the outſide of the ſaid Jaw, which threatened a total corruption of it. They demanded my Judgment in the taking it off. I repli'd, If the Bone be thin, it may be cut off by paſſing an Inciſion-knife within his Mouth between the Cheek and his Jaw. If upon trial the Bone prove too hard or difficult to extirpate, the Wound will ſoon cure without Deformity. This was delivered by me with ſuch heſitation as might have well ſhewed the little inclination I had to operate in it. Three or four months after the Patient came to me with his Uncle Captain *Middleton*, and earneſtly deſired me to proceed in the cutting out that *Exoſtoſis* the way I had diſcourſed of formerly to him. I adviſed them to conſult Phyſicians and Chirurgeons in the undertaking. They conſented to it, and ſent to Dr. *Charleton*, (who had been one of his Phyſicians

in the Country,) Dr. *Walter Needham*, and Mr. *Hollyer*. We accordingly met, and together informed our ſelves of the nature of the Tumour and its ſituation, then retired to conſult. The firſt queſtion propoſed was, whether the *Exoſtoſis* might be cut ſafely off; which was unanimouſly granted. The next conſideration was, of the way to take it out. But we differing therein, concluded to defer the Operation till the *Caries* in the Jaw ſhould by its eruption make its own way through. Somewhat to this purpoſe we all ſubſcribed, and delivered to the Patient; which he threw into the fire, and departed much unſatisfied with ſuch a dilatory Anſwer.

The third day after we were conſulted again, and concluded that Inciſion ſhould be made between the Cheek and Jaw to the *Exoſtoſis*, and that accordingly as the Bone ſhould be diſcovered by the Knife to be hard or ſoft, ſo we ſhould proceed in the ſawing it off, or permitting the Wound to heal again. This we ſubſcribed, and ſent to the Patient; and I afterwards diſcourſed with him and his Uncle, and prevailed with them, that thoſe who had been conſulted might be preſent at the Operation. Accordingly they ſent to them. In the mean time his Body was prepared by a purging Apozeme 4 or 5 days. Venæſection was deferred, in conſideration that bloud would be evacuated in the Operation.

In order to the Operation, the Patient having ſeated himſelf in a clear light, I paſſed my Knife between the outſide of his Jaw and his Cheek cloſe to the *baſis* of the *Exoſtoſis* the length of it, and at that inſtant attempted the cutting of it: but it was too hard. I declared ſo, and asked them whether I ſhould pull out the Knife. They all unanimouſly, with the Patient and his Uncle, declared that I ſhould proceed with the Saw; of which there were two provided of equal ſize with the Knife. I pulled out the Knife, and paſſing in the Saw to the very *baſis*, made a track: then put the Handle of the Saw into one of the Phyſician's hands, deſiring them they would ſeverally help in the ſawing of the Bone; ſo ſhould they be more ſatisfied in the work, and eaſe me, who was too much indiſpoſed in my health for ſuch a buſineſs. They did ſeverally take their turns, and had at that time ſawed off the Bone, if we had not been interrupted by the wearineſs of the Patient, and the bleeding of a ſmall capillary Artery in the Cheek. I dreſſed up the Wound with Doſſils of Lint, to keep it dilated, and thereby ſtopt the bleeding. We embrocated the external parts with *ol. roſ. cum aceto*, and applied *empl. è bolo* over it. The third night the Wound bled afreſh, whether it was cauſed by eating, or what other accident; but my Kinſman *Jaques Wiſeman* ſtopt it with a Compreſs dipt in the Royal Stiptick held cloſe with his fingers, and was relieved by others. But the Patient not permitting them to hold the Compreſs ſo cloſe on as Mr. *Hollyer* and my ſelf adviſed, the Veſſel was the longer in agglutinating, and raiſed an *Aneuriſma* of the bigneſs of a Lupin, which lying in our way, we burnt it down by a ſmall Button-cautery. This difficulty over, we all met again, and proceeded in the ſawing off the Bone, and did all of us ſuppoſe we had finiſhed that work, (which Opinion was occaſioned by the *Caries* within it, which admitted of our Probes, and made the whole Bone ſeem looſe,) and purpoſed then to extract it. But he pleading his wearineſs, we complied with him, dreſſed up the Wound with a Tent dipt *in vitello ovi*, and fomenting the external Parts, dreſſed them with Lenients; by which the parts were eaſed, and the Wound diſcharged a well-digeſted white Matter. In this condition I left the Patient (with their leaves,) to make a Journy into the Country 4 or 5 days; during which I grew more indiſpoſed, and returned home grievouſly diſeaſed, yet made a ſhift to viſit the Patient, and urged the extraction of the Bone. Whether it was that he heard the Wound was to

be

be inlarged, and that he feared a Flux of bloud, but he put them off from day to day, and during my confinement to my Chamber I had news of an approach of Convulsions; upon which I was carried to him, where we all met at a Consultation, and Dr. *Lowre* with us. It being suspected that this Accident was occasioned by some Shivers of the Bones pricking the Membranes, we resolved to hasten the extraction of them: but his Teeth being set, there remained no possibility of doing it that way. Therefore we resolved to apply a Caustick on the lower part of the Jaw externally, and by cutting through it to draw out the Bone. My hands being weak, Dr. *Lowre* marked it, and together they applied the Caustick, resolving to meet again that afternoon to divide the Escar, and take out the Bone. But within few hours after the Patient sent for us to take off the Caustick. I went, and found an Escar made as was designed, but I had not strength enough in my hands to make use of a Knife. Dr. *Charleton* and Mr. *Hollyer* were at a publick Dissection in our Theatre, where Dr. *Walter Needham* was Reader: only Dr. *Lowre* and *Jaques Wiseman* were to be found. They being come, my Kinsman divided the Escar, made separation of the Bone, and drew it out. I afterwards put in my finger, and feeling no Shiver, advised the dressing it up with *unguent. basilic.* hot. That evening they all met, and approved of what had been done, and hoped the cause being taken away, the effects would have ceased. Dr. *Goddard*'s Drops were prescribed, and Venæsection had been proposed; but being disputable, it was deferred. The next morning Dr. *Tho. Cox* met us at a Consultation, and advised the Patient to be let bloud, the Hair of his head to be shaved, blistering Plaisters to be applied, and variety of internal Medicaments were prescribed; the Wound was opened and dressed: it was not without good hopes of Digestion, but the Patient died convulsive the third day after.

The Patient's Cheek was laid open in the presence of all the Physicians and Chirurgeons. The Bone was found sawed off without the least impairing of the Jaw; but it was very much eaten into by the *Caries*, and was spongy. The cause of the Convulsions seemed to be referrable to the Constitution of his body, and the Acrimony of the bloud, which upon fluxion fermented, and produced that sad effect. We see frequently the same in little Maladies. The only drying up of a light Excoriation behind the Ears in Infants hath caused Convulsions. In the *King's-Evil* you may see many Instances of the fermenting of this kind of Matter most grievously upon the healing some one Ulcer.

The Monument at *Westminster* of the young Lady holding up her Finger prickt with a Needle, of which she died, may serve to shew you that in ill Habits of body small Wounds are mortal. As to this Operation, it was not dangerous, if you consider the great Fractures in the Jaws which we frequently cure; and that of late years I cut into the inside of a man's Cheek, sawed in pieces the *Alveolus*, and took out the whole Jaw, and cured him. That the Operation was necessary, appeared by the rottenness in the Jaw upon dissection, and may be determined by all those who know what a *Spina ventosa* is, and consider the progress this had made in so short a time.

Having thus given you some Instances of the several *Strumæ* with complicated Tumours and Ulcers arising from them, I shall now shew you how the Tendons and Joynts are diseased with various sorts of Tumours, some whereof are without *Caries*, others with it, and others take their original from *Caries* in the Bone, commonly called by the name of *Spina ventosa*.

1. Observat. of *Gummi* upon the Tendons.

A Child aged 7 years was brought to me, which had a Gummy Swelling encompassing the Muscle *mastoïdes* on the right side of her Neck: the Tendons also

alſo of the Fingers of her right Hand were affected with the like Swellings. She had alſo a frequent diſcharge of purulent Matter from her right Ear; alſo an *Ozæna*, and thick upper Lip chapt. I cauſed the cruſted Matter in her Noſtrils to be ſuppled by the frequent injecting of *decoct. hordei, ſem. althææ*, &c. and afterward deterged the Ulcers with a Solution of *mel magiſtral.* in a Decoction *rad. biſtortæ, tormentillæ, ireos*, &c. The Lip was dreſſed daily with a *Pomatum* of *unguent. roſat.* and *Merc. præcipitat. Vigon.* and the *Gummi* upon the Neck and Fingers were embrocated with *unguent. magiſt. ad ſtrumas*, and an *empl. ad tophos* applied over all. During which Applications the Child was frequently purged with *Calomel.* and *diagrid.* and drank a *decoct. ſarſæ, radic. bardanæ, ſcrophul. maj. flor. ſalviæ, beton. anthos*, &c. But the Cure not ſucceeding with theſe, I gave her a few grains of *theriac. metall.* by which ſhe ſalivated: during which the Gummy Tumours reſolved, and the ſeveral Ulcerations dried up: yet to confirm her Cure, ſhe took Sudorificks, and purged frequently.

2. Obſervat. of a ſtrumous Swelling on the Ancle.

A Child of about eight years of age was brought to me with a pituitous Swelling in his right Ancle and Foot. His Parents ſuppoſed it cauſed by ſome diſtenſion of that Joynt, and had applied anodyne relaxing Medicaments. But upon obſerving the Bones of the Ancle to be preternaturally big, I concluded the original of the Diſeaſe in them, and that the Swelling in the Parts about proceeded from the dilatation of the Membranes and Ligaments of that Joynt. I declared the Cure to be a work of time: we not having yet diſcovered any Medicaments of force to dry up that Humour in the Bone, and reſtore it to its former ſmalneſs. That which was offered by me was, to diſcuſs and dry up the ſerous Humours affecting the ſofter Parts, by Bandage to compreſs them, and reſiſt the Influx, and the while to evacuate and contemperate the ſerous Humours. This being accepted of, I began with the fomenting it with *decoct. ſummitat. abſinth. majoranæ, Jacobeæ, flor. hyperici, ſalviæ, roſ. rub. balauſt. bacc. myrtil.* &c. in Wine and Water, with the addition of *ſpir. vini.* I then applied an *empl. è bolo* with a laced Sock over it, adviſing that Leg to be laid level with the Body till the Fluxion ſhould be remitted, and the Joynt ſtrengthened: During which the Patient was purged weekly with *Calomel. in conſ. roſ. damaſc.* adding ſometimes a few grains *reſinæ jalapii*, or *diagrid.* and the intermitting days he drank *decoct. ſarſæ*, &c. and took thoſe mornings *Bezoard. mineral. cum ſyr. è cort. citri.* Thus at length the Humours were contemperated, and the Joynt ſtrengthened; and as the Patient grew more in years, the other Ancle increaſed proportionably to it, and leſſened the deformity.

I could give you many Inſtances of theſe Tumours; but the Cure not differing from what hath been ſaid of this, I thought it unneceſſary. What the conſequences of theſe Tumours are when ſuch method is neglected, you may ſee in ſome of the latter Obſervations.

3. Obſervat. of a ſtrumous Tumour by Congeſtion.

An Infant ſcarce a year old, in the undreſſing of it, was diſcovered to have a round ſoft white Swelling on the head of the Shoulder. It was thought overſtrained by the Nurſe. A Phyſician was conſulted, then a Bone-ſetter, who declared it luxated, and pretended he had ſet it: but his frequent coming to dreſs it, and the remaining Tumour, ſhewed that he underſtood not what he did. I was fetched, and opened it by Inciſion, giving vent firſt to an albuginous, then to a white concocted Matter; upon which the Tumour ſunk. I fomented it with Red wine, and dreſſed it with a Digeſtive *ex terebinth. cum vitell. ovi*, with *empl. diachalcit.* Compreſs and Bandage, and afterwards deterged it with an addition of *mel roſ.* then left off the uſe of Tents, and in few days cured it with *unguentum diapompholyg.* This Infant was afterwards

wards diſeaſed 5 or 6 years with the *King's-Evil* affecting other Parts.

Such another like Tumour did riſe in the top of the Shoulder of a little Infant, the only Daughter of its Parents. At the Nurſe's firſt diſcovery of it, ſhe ran with it to the Bone-ſetters. They all concluded it out of Joynt, and every one pretended he had ſet it. But the Swelling continuing, I was fetched, and, opening it by Inciſion, diſcharged ſuch a like Matter as in the former Obſervation, and cured it as ſoon, after the ſame manner as aboveſaid. This Child was afterwards afflicted with a very large Tumour lying deep under the Muſcles on the inſide of one of its Thighs. After divers Applications to reſolve it, it at laſt came to Suppuration, and diſcharged an impure Matter; but was deterged and cured by the ordinary method ſet down in Putrid Ulcers, without any ſeeming defect in the Member. But ſome months after, the Infant uſing its Legs, this appeared much ſhorter than the other, yet without any manner of contraction or ſtiffneſs of the Member. I deſigned an Inſtrument for diſtending of it; but the Child being extreamly froward, I declined it. After ſhe was grown of more years, I was conſulted again: but it was then too late.

4. Obſervat. of the like; and of a ſtrumous Tumour in the Thigh.

One about 19 years of age, of a ſeeming healthful Conſtitution, was ſuddenly ſeized with a white Swelling in his right Elbow, rendring the Joynt immovable. Though he could not remember any particular action of his that ſhould diſlocate it, yet he was perſwaded to conſult the Bone-ſetters. They all concluded it out, and endeavoured to reduce it; thereby haſtening an Apoſtemation amongſt the Ligaments and Tendons, which diſcharged its Matter through many Orifices on the inner and outer ſide of the Joynt, making part of the Bone carious. Some of the declining Orifices I laid open, and deterged them; during which he was purged, and preſcribed Antiſtrumaticks. Injections were caſt in of that ſort propoſed in Sinuous Ulcers with *Caries*, alſo diſcutient and corroborative Fomentations were applied. By all which at length the Tumour reſolved, the Ulcers cured, and by frequent Embrocations he recovered a tolerable uſe of that Joynt.

5. Obſervat. of an Abſceſs on the Elbow.

A Child of about 3 years old, healthful from its Cradle, was on a ſudden taken lame in its right Hip. The Lameneſs increaſing, he was brought to me. I compared the Hips, and found that ſwelled, and the Leg beginning to emaciate. I embrocated the Tumour *cum ol. roſ. & aceto*, applying *emplaſt. è bolo*, and his Leg *cum ol. lumbricor.* I preſcribed him a medicated ſmall Ale with *Sarſa*, &c. and purged him once a-week with Rhubarb infuſed in ſome of the ſaid Drink, giving him the night before a few grains of *Merc. dulcis*, and the intermitting days *Bezoard. mineral.* By this method he was relieved; yet afterwards upon the omitting it he relapſed, but at length recovered. Others of this kind I have had under my care: but partly by reaſon of the progreſs the Diſeaſe had made before, and partly through the Impatiency of the Parents, the Cure hath failed.

6. Obſervat of an Abſceſs on the Hip.

A Youth of about 12 years of age was ſeized with a pain in his right Hip. It increaſing with Tumefaction and great Lameneſs, the Parents, ſuſpecting it might be out of joynt, ſent for *Thurland* the Bone-ſetter. He declared it luxated, and pretended to ſet it, and dreſſed it up his way. The Child continuing lame, they ſent for him again. He aſſured them he had ſet it, and that in time the Child would recover ſtrength in it, and be well. But the Child growing daily more pained, Chirurgeons were conſulted, and at laſt my ſelf. I ſaw the head of the *Os femoris* ſhot upward, and a large Tumour poſſeſſing the Hip and Parts about, under which there ſeemed to be lodged Matter. There was alſo a long white Swelling ſtretching down the forepart of the Thigh, from the Groin towards the Knee, within 4 fingers breadth of it. The Tumour ſeemed

7. Obſervat. of the like.

ſeemed to be full of Matter, and to derive it ſelf from the Hip, and that the Luxation had been made by Fluxion, and increaſed by the Extenſion. But however it was, the Bone was not capable of Reduction, nor could I promiſe my ſelf any credit from my endeavours there; yet I complied with his Parents, reſolving to ſerve them as well as I could; but deſired that the Bone-ſetter might be firſt fetched to ſee his work: I not thinking it ſafe to meddle in the Cure, whilſt he inſiſted that the Bone was reduced. They ſent often for him, but he did not come, till I accidentally met him at a Perſon of Honour's Lodging, and by threatning brought him with me to the Child; where he acknowledged his fault, and declared the Bone incapable of reduction. Yet this Fellow went directly back to that Perſon of Honour, and upon demand where he had been, declared that he had been with me, to ſet my Patient's Hip, and that he had reduced it.

This Fellow's ſcurvy uſing me almoſt diſcouraged me in the undertaking: but after making a preſentation of it, I attempted the Cure, and began with diſcutient Fomentations, Embrocations, and Emplaſters, according to the method of Cure, till I had diſcuſſed part of the external Tumour, and ſatisfied my ſelf that there was Matter lying deep under the Muſcles of that Joynt. Then, to prevent farther corruption of thoſe Parts, I applied three ſeveral Cauſticks on them at one time: after which I divided the Eſcars, and penetrated deeper into them with a Cauſtick-ſtone, and by Inciſion gave vent to the Matter (which was partly albuginous) in the ſeveral Parts; then fomented them, and dreſſed them up with Lenients, to haſten ſeparation of the Eſcars. The next day I applied a Cauſtick upon the declining part of the Abſceſs on the fore-part of the Thigh, and diſcharged much purulent Matter. By the opening this at firſt, I might have diſcharged the Matter above: but that being the Part immediately affected, it was not probable to cure it thereby, and afterwards the Opening would have been more difficult. And indeed, though by one ſingle Apertion on the Hip the Matter might have been let out; yet ſuch a large Abſceſs would not have cured ſo: and afterwards to have cut through ſo many Muſcles, muſt needs have been hazardous. But their lying thus triangular ſerved to good purpoſe not only in diſcharging the Matter, but for conveniency of deterging; which after ſeparation of the Eſcars I did with *mundif. Paracelſi* and *Merc. præcipitat.* and kept thoſe Orifices ſo open, that I could paſs my Probe out of one into the other till they were deterged, and the Matter little in quantity and good. During which, the Matter in the other Abſceſs diſcharging daily in great quantity, and being of ſo virulent a quality as to retain its Cavities, and render the Lips phagedænous, I ſnipt the Aſceſs more open according to its length, and deterged it as the former, then purged him with *reſina jalapii*, *Calomel.* &c. and gave him the intermitting days *Bezoard. miner.* His conſtant Drink was a medicated Ale with *ſarſa*, *lign. lentiſc.* &c. with *millepedes*. By this method the Humours were digeſted, and the ſeveral Ulcers incarned and cicatrized by the common method of Cure. During which his Leg was kept ſtreight; and time hath ſince made the place callous which received the head of the Bone, ſo that he walks tolerably well on that Leg.

8. Obſervat. of an Abſceſs on the Hip.

A Youth of about 9 years of age was taken lame with a pain in his left Hip. Bone-ſetters were adviſed with, alſo Phyſicians and Chirurgeons were conſulted, & many Applications made; he was likewiſe carried to the *Bath*: yet notwithſtanding all their Endeavours, the pain increaſed with great Tumefaction. I was at laſt conſulted, and felt the head of the *Os femoris* luxated & raiſed upward, with a great Tumour about it, which I judged by its fluctuation to be full of Matter. It was expected I ſhould open it, and give vent to the ſame:

ſame: but this Child being emaciated and Hectick, and the Matter lying deep, as in all theſe Strumous Abſceſſes it doth, the Solution beginning in or near the Joynt, I declin'd the preſent Opening of it, and propoſed the drying up of that Matter by powerful Exſiccants and Diſcutients, *viz. aq. calcis*, and *empl. diaſulph.* with convenient Bandage. During which the Phyſician preſcribed lenient Purgatives, with *Calomel. decoct. ſarſæ*, *Bezoard. min.* &c. by which method the Patient was more eaſie, and ſeemed relieved for a while. But the Tumour increaſing upon the leaſt neglect in rowling, and appearing by its fluctuation to be full of Matter, I complied with their deſire, and opened it by a large Cauſtick, giving vent to an albuginous Matter. I made ſearch, and felt the Bone bare. I haſtened ſeparation of the Eſcar; and afterwards feeling the Skin thinner in the declining part of the Tumour, and judging that convenienter for diſcharge of the Matter, I opened that part by Cauſtick. Having now made way for the Matter, I caſt in an Injection of *decoct. rad. irid. ariſtoloch.* &c. with a Solution of *unguent. fuſcum.* After ſeparation of the Eſcar, I inlarged the Orifice towards the old one, and ſaw the *Epiphyſis* of the *Os femoris* lying out of its *Acetabulum*, and black with its Rottenneſs. I dreſſed it with Doſſils dipt in *ſpir. vini*, and kept the Ulcer dilated, expecting what Nature would do: but in the while the Child languiſhed, and died tabid.

9. Obſervat of an Abſceſs on the Hip.

A Girl of about 9 years of age, born of a diſeaſed Mother, having been ſome months lame of a Swelling on the Hip, was brought to me. It ſeemed to me that the head of the *Os femoris* was luxated by a defluxion of ſharp Matter, and that there was ſmall hope of Cure. I applied *empl. diaſulph.* with a laced Trowze, and preſcribed Antiſtrumaticks. In progreſs of time the Tumour increaſing, they brought her again to me. When I had conſidered the original of it, and that if there were Matter in it, it lay too deep to be reached with a Cauſtick, I propoſed the application of a pointed actual Cautery about the head of the Joynt, hoping I might that way at leaſt give timely vent to the Humour, and prevent the corruption of the Ligaments and Bones. To which purpoſe I applied three ſmall Cauſticks triangular about the moſt tumefied part of the Joynt, and the next day paſſed in an actual Cautery through each Eſcar, dreſſed them up with Lenients, and fomented the diſeaſed Part daily with an Infuſion of Diſcutients in *aq. calcis* and *empl. opodel F. W.* over all. As the Eſcars caſt off, a thin *Sanies* diſcharged, and the Tumour ſeemingly diſcuſſed: but then on a ſudden it ſwelled; which put me upon the uſe of a maturative Cataplaſm, by which it ſuppurated, and diſcharged its Matter through the former Apertions. But afterwards obſerving theſe Openings would grow too little, I paſſed in a ſmall Probe with a Ligature into one of theſe, brought it out at one of the other, and kept them open by that Seton, then proceeded again with Diſcutients and Internals. Some months afterwards theſe two Openings were laid into one, and the Orifice kept dilated with Doſſils ſpred with Deterſives, and the Abſceſs was again reſtored to a healing condition. But after all my Endeavours, new Apoſtemations aroſe, and the Child died tabid.

10 Obſervat. of a Protuberance in the Bone of the Knee.

A Young man of about 18 years of age, being lame of his left Knee, ſent for a Bone-ſetter, who declared the Bone luxated, and would have extended it. The next day I was ſent for, and ſaw a Protuberance on the inſide of the Bone, a pituitous Swelling on each ſide of the *Rotula*, and a painful Swelling on the other Parts about the Knee. Theſe, with the Protuberance of the Bone, made the Joynt ſeem ſomewhat luxated at firſt ſight: but upon farther ſearch, that Prominence was in the Bone it ſelf, and is uſual in ſtrumous Tumours of the Knees, Ancles, *&c.* and hath been taken notice of by *Aquapend.* under the

the name of *Spina ventoſa.* I have taken notice of it in ſeveral places of this Treatiſe, and ſhall have occaſion to ſpeak of it again in ſome of the following Obſervations.

I concluded this Diſeaſe to have been originally in the Bone; and, upon farther enquiry, did diſcover that the Patient had been diſeaſed of that Knee from his Childhood more or leſs. I directed an *empl. è bolo* to be applied on the Knee, to calm the heat in the Part, then let him bloud, and afterwards purged him. The next day after I cauſed his Knee to be fomented with Diſcutients and Exſiccants infuſed *in aq. calcis* ſome days, and afterwards applied *empl. diaſulph.* with a Knee-piece, and diſpoſed him to walk with more eaſe. About a year after he came to me again complaining of it, and will be ſubject to pain in it at times whilſt he lives. This was the caſe of a perſon Dr. *Walter Needham* and my ſelf were lately conſulted about: and ſuch are frequently ſeen at our publick Healings, they being generally accompanied with other marks of the *Kings-Evil.*

11. Obſervat. of a Tumour on the inſide of the Knee.

A perſon of about 9 years of age, of a tender Conſtitution, ſubject to a Cough and other effects from an acidity in her Bloud, was afterwards diſcover'd to be lame of her right Knee, ſuppoſed to happen by ſome accident of a Fall. I being ſent for ſaw the Bone on the inſide protuberant, and covered with a white Swelling. It was poſſible that ſuch an accident of a Fall might contribute to the haſtning of that Swelling: but it was certain that the Protuberance of the Bone was of a longer growth. She had a Species of an *Ozæna*, as alſo a *Struma* ulcerated in her left Arm. I did ſuſpect this Tumour would prove difficult of Cure, and therefore deſired they would conſult their Phyſician. In the mean time I applied an *empl. è bolo.* The third day after I met Dr. *Micklethwait.* The Tumour was then ſpreading over all that ſide of the Knee. It was reſolved by us to endeavour Diſcuſſion, by the application of *empl. diaſulphuris:* which was accordingly done. The Phyſician preſcribed as followeth. ℞ *ſarſaparillæ inciſ.* ℥ij. *Chinæ nodoſæ* ℥i. *ſaſſafras* ℥iij. *rad. ſcorzoner. Hiſpan.* ℥ß. *raſ. eboris, corn. cervi, an.* ℥iij. *cretæ puriſſimæ, bol. armen. an.* ℥ij. *coq. in aq. font. ad* ℔iij. *ſub finem adde ſem. aniſi* ℥iij. *glycyrrhizæ* ℥ß. *uvar. paſſul.* ℥ij. *fiat Colatura; bibat quantum poterit.* ℞ *Merc. dulc.* gr. x. *conſ. roſ. damaſc.* ℈ij. *Miſc. fiat Bolus hora ſomni ſumend.* 5. *quaque nocte* ℞ *milleped. præp.* gr. x. *antimon. diaphoret.* gr. vj. *Miſc.* This latter ſhe took twice a day, with a draught of her Diet-drink after it: thoſe days ſhe intermitted the Purgative. 4 or 5 days after we met again; and ſeeing the Tumour increaſed, and feeling the Matter fluctuate in it, we concluded it neceſſary to open it; and to that purpoſe applied a Cauſtick on the declining part. We divided the Eſcar, and diſcharged about 3 ſpoonfuls of a thin white Matter; then dreſſed it up with Lenients, and *empl. diachyl.* The Matter diſcharged between Dreſſings very well, yet the Tumour did not leſſen: but upon preſſure with my hand above near the Thigh, the Matter guſhed out. Upon which conſideration we applied a Cauſtick there. It did not reach it: but upon keeping that part open as a Fontanel with a Pea, the Matter made its way out there, but in the mean while it inſinuated it ſelf below the firſt Apertion; which put me upon the laying that Orifice open lower. Having thus made convenient diſcharge of the Matter, I applied Intercipients above about the Thigh, and endeavoured by Digeſtives and Deterſives with Compreſs and Bandage to diſpoſe the Ulcers to cure. But the Matter, originally riſing amongſt the Membranes and Tendons, lay deep, and affected the Joynt with great virulency, corroding the very Lips of the Ulcer. Upon which conſideration I would gladly have laid it open from one Orifice to the other: but the weak condition of the Patient obliged me to cheriſh the native heat of the Part by Fomentations *ex ſum-*

ſummitat. abſinth. hyperici, flor. roriſmarin. beton. ſalviæ, roſ. rub. balauſt. bacc. myrt. juniper. &c. *in vino rub.* and to alleviate the pain in the Ulcers, till the Habit of body ſhould be better diſpoſed by thoſe internal Preſcriptions, to which were added Emulſions, with *aq. calcis*, medicated Broths, Aſſes milk, Jellies; what not? The Summer coming on, ſhe was bathed in Milk and Water lukewarm, and by cordial Juleps her ſpirits were kept up. By theſe various Preſcriptions the Fermentation in the Humours was calmed, and her Hectical heat remitted, alſo the Defluxion upon the Ulcer diminiſhed, & the *Sinus* was in a condition to be laid open. I deſigned to have done it by one ſnip of a Probe-ſciſſors: but it being ſuſpected ſhe might thereupon faint or fall into Convulſions, I laid it open by Cauſtick; and from that time digeſted, incarned and cicatrized. I met with many rubs in the work, it frequently fretting out in one part as it healed in another: and after a year and a halfs attendance, I left a ſmall Ulceration on the upper part of the Knee, of the breadth of a ſilver Half-peny, and a ſinuous Ulcer in the hollow of the Thigh near the Knee, which was not capable of being laid open. In that I order'd a hollow ſhort Tent of Lead, whereby it was kept open, and the Matter was ſeemingly diſcharged, it ſcarce at all mattering. Her Leg was all this while kept outſtretched, whereby ſhe was able to ſtand or walk. In this condition ſhe removed to drink the Waters at *Scarborough*, and returned afterwards ſo well, that they were thought to have cured her: yet ſhe hath been ſince frequently ſubject to Eruptions, but her Attendant is her Chirurgeon.

12. Obſervat. of a Tumour on the Knee.

A Child of about eight years of age was brought to me in the year of the great Plague during my being in the Country. He had one white Swelling on the right ſide of the *Rotula*, another beneath it. There had been one on the left ſide, but it had been formerly opened at *London*, and left ſinuous. I began with the laying it more open by Inciſion; and having deterged and diſpoſed it to cicatrize by the common method of curing Ulcers, I opened the other beneath the *Rotula*, and gave vent to an albuginous Matter, then laid it open the whole length, and dreſſed it with Doſſils ſpred with *mundif. Paracelſi.* This being deterged, and diſpoſed to incarn, I then opened the third, and diſcharged the ſame kind of Matter. I deterged it as the former, and by the addition of *pulv. myrrhæ, ſarcocoll.* &c. incarned it. I cicatrized the ſecond with *unguent. è calce*, and having diſpoſed this to do ſo, I left him to his Chirurgeon, who cicatrized it. During the cure of the Ulcers, the Ham was daily embrocated with *unguent. dialthææ, ol. lumbricor.* &c. and was brought out ſtraight, and left flexible by me. Soon after he recovered ſtrength of it, and walketh now well on that Leg.

13. Obſervat. of the like.

Another about 7 years of age was brought out of the Country to me, and lodged near me in *Covent-Garden*. He had been 2 years exceedingly lame of his left Knee by reaſon of the like Swellings about the *Rotula*; his Ham was alſo retracted, and his Leg emaciated. I began with the ſtuping them with *aq. calcis* wherein had been infuſed *ſummitat. hyperici, hyſſopi, majoranæ, flor. ſambuci, chamæm. roſ. rub. bacc. myrt. juniper.* &c. and applied *empl. diaſulphuris*, &c. But the Swellings not diminiſhing thereby, I opened that beneath the *Rotula* firſt, and the reſt afterwards. That on the outſide of the *Rotula* was an *Atheroma*, and grew ſinuous; and upon ſearch I felt the Cartilage bare. I laid it open the whole length, kept it ſo with Doſſils dipt in *ſpir. vini* and *ſyr. de roſ. ſiccis*, and attended the Exfoliation. During which the Patient was purged with *Calomel.* and *diagrid.* once a week, and on the intermitting days drank a *decoct. ſarſæ*, &c. *Bezoard. mineral.* &c. were alſo preſcribed. Emollient Embrocations were made to the Ham, and a laced Knee-piece put on to make Compreſſion, and diſpoſe the Lips of the Ulcers to cicatrize: by

which two of the Ulcers ſoon cured, and ſome while after the other incarned and healed to the very Cartilage. I kept it dilated with a Doſſil, and thereby the Matter leſſened daily, and that Ulcer cured (by leaving out the Doſſil) without any viſible Exfoliation. The Ham was much relaxed: but there being ſome contraction remaining, I fitted him with an Inſtrument which by virtue of its Screws gradually extended the Joynt, and diſmiſſed him with ſatisfaction to his Parents.

14. Obſervat. of a Tumour on the right Knee.

A Child of about ſix years of age was brought to me with ſoar Eyes, and a white oval Swelling on the inſide of her right Knee. I applied a Cauſtick on it, and the next day opened it. It lay deeper than the Cauſtick had reached; and the Inciſion appearing too ſmall for the emptying of it, I laid it more open with a ſnip of my Probe-ſciſſors, and diſcharged a Cheeſie Matter. I then dreſſed it up with Digeſtives, and the fourth day took off Dreſſings, and ſaw part of the *Cyſtis* come away with my Doſſils. I dreſſed it with *mundif. Paracelſi*, and having thereby deterged it, I added Sarcoticks to the Mundificative, and commended the proſecution of the Cure to their neighbouring Chirurgeon, with direction to proceed with Internals to evacuate and contemperate the acid Humours. Many Inſtances of this kind I could preſent you: but they not differing in the manner of Cure, I ſhall forbear, and give you one Inſtance of the ſad conſequences of theſe Tumours.

15. Obſervat. of Tumours on the right Knee.

A Young man, 19 years of age, had been lame from his Childhood with ſeveral of the aforeſaid Swellings about the *Rotula* of his left Knee, with a retraction of the Ham: he had alſo Glands ſwelled *in Inguine*, &c. At length a Defluxion ſeized upon the uppermoſt Tumour of the Knee, & increaſed it and the reſt with great pain. A frequent Vomiting and *Diarrhœa* accompanied it, and ſometimes a Cough. I being conſulted endeavoured to reſiſt the ſeveral Accidents by Pectorals, Opiats, Cordials, *&c.* and began the Chirurgery by the application of a Cauſtick on the Tumour above the Knee, by which I gave a great diſcharge to a purulent Matter; then dreſſed it up with Lenients, hoping to intercept the Matter in its deſcent downwards: but before that Eſcar ſeparated, the Matter made its way down to the external parts of the Knee; which put me upon the neceſſity of opening it there, and afterwards on the inſide of the Knee, and in two ſeveral places of the Joynt it ſelf. In ſome of which I felt the Cartilages and Bones corrupted; to which I applied an actual Cautery, and afterwards kept them open by a Paſte made of *pulv. rad. ariſtoloch. rot. panacis*, &c. Having thus given evacuation to the Matter by the ſeveral Apertions, I fomented the Parts with Stupes wrung out of a diſcutient and corroborative Decoction, and applied Cataplaſms *ex far. fabar. hordei, lentium, flor. roſ. rub. balauſt.* &c. decocted in ſome of the forementioned *Fotus*, with the addition of *oxymel ſcillitic.* &c. then by the application of *mundif. Paracelſi*, Præcipitate and the Vitriol-ſtone, I deterged and diſpoſed the Ulcers to a better condition, that on the upper part of the Knee healing up. But the while I attended the Exfoliation of the Bones, the *Caries* increaſed, and the Patient languiſhing died at laſt tabid.

16. Obſervat. of a ſtrumous Ulcer on the Ancle.

A Child of about 6 years of age was brought to me extreamly emaciated. He had a ſtrumous Ulcer on the outſide of his Ancle, with a *Caries* on the end of the *Fibula:* he had alſo three of the Spondyls of his Back diſtorted. I laid the Ulcer open by Cauſtick, and afterwards deterged it, and dreſſed the Bone with Doſſils of Lint dipt in *ſpir. vini*; over which I applied Epuloticks, with Compreſs and Bandage. His diſtorted Spine, being ſomewhat inflamed, I embrocated *cum oleo myrtill. & aceto*, and applied an *empl. è bolo*, with a ſoft Compreſs and Bracer. During which Dr. *Bate* and the deceaſed Dr. *Stanley* were conſulted, and preſcribed him as followeth: ℞ *Merc. dulc.* gr. xv.

gr. xv. *resinæ jalapii* gr. vij. *bezoard. min.* gr. iiij. *cum succo gran. chermes fiat Bolus, capiat hora somni, & mane* ʒiij. *syrup. de cichoreo cum rhab. in* ʒiij. *aq. germ. querc. iteretur quarto quoque die.* ℞ *sarsaparillæ incis. & contus.* ʒv. *ligni lentisc.* ʒij. *rad. Chinæ* ʒiß. *ras. eboris* ʒj. *milleped. contus. num.* 1000. *uvar. passular. enucleat.* ʒx. *radic. ruscі* ʒiiij. *Misc. pro sacculo pro tribus cong. Alæ tenuis non lupulat. bibat pro potu ordinario.* ℞ *aq. calcis* ℔j. *sarsaparill.* ʒj. *rad. Chinæ* ʒß. *uvar. passular. enucleat.* ʒiv. *glycyrrhizæ* ʒvj. *fiat Infusio.* ℞ *hujus infusionis* ʒiv. *rad. eryngii conditi* ʒvj. *sem. melon.* ʒij. *fiat Emulsio S. A. dulcoranda sacchar. tabellat. perlati, sumat* ʒij. *mane & vesperi.* After the removal of the Defluxion upon the Spine, I applied an *empl. ad herniam* with Bandage as before. Whilst I attended the Exfoliation of the Bone by the application of Lint pressed out of *spir. vini,* I healed the Ulcer in the Parts about to the very Bone, and as that moulder'd off, the Ulcer incarned and cicatrized, and the Child perfectly recovered within the space of two months, continuing straight and well to this day.

7. Observat. of several Strumous Ulcers with *Caries.*

One about 13 years of age, grievously diseased with the *King's-Evil,* was commended to my care. He had a *Struma* on the right side of his Neck movable, and of a round figure: he had also a *Struma* ulcerated in each Arm; the one on the inside near the Elbow-joynt, and the other on the outside of the *Biceps.* His right Hand was ulcerated near the Bone leading to the first Joynt of the Thumb, and passed its Matter close by the Bone to the inside, corrupting the Bone. One of his Ancles was much swelled & ulcerated on the inside in several places, which Ulcers upon search with a Probe appeared to have communication with one another, and served for the discharge of an Abscess lying in the Joynt, with corruption of the Bone. He had also in the Groin of the same side a Cluster of *Strumæ*; which I suppose were occasioned by the anguish in the Ancle. Sir *Alex. Fraser* and Sir *Fra. Prujean* were his Physicians, and prescribed him medicated Broths, traumatick Decoctions, with other Specificks proper in his weak condition. I began my work with the laying open those Ulcers in his Hand and Ancle by Caustick, and proceeded by Deterfives to consume the *Hypersarcosis,* and make way to the Bones, accordingly as hath been shewed in the Treatise of Ulcers. After I had made way to them, I dressed them with Dossils prest out of *spir. vini,* keeping those Ulcers dilated. During which I endeavoured to digest the ulcerated Parts about, and cicatrize them to the carious Bones, likewise to cherish the native Heat in the Members, and defend them from Fluxion by good discutient and corroborative Fomentations and Bandage. By this means the Matter daily lessened, and the Patient recruited his strength. I attempted the Exfoliation of these Bones some days, by dressing them with a Solution of *unguent. Ægyptiac. spir. vini, pulv. myrrhæ, euphorb.* &c. upon Dossils hot; and it succeeded well to that *Caries* on the Hand. But the Corruption was too great in the Ancle-joynt to yield to that Medicament; wherefore having healed that Ulcer to the *Caries,* I applied an actual Cautery through a *Cannula.* At the first application, pressing upon the *Caries,* the Matter spurted out upon us. I pull'd out the Cautery and *Cannula,* and dried the Ulcer with armed Probes, repeating the use of the Cautery till I had consumed the *Caries*; then dressed it up with Lenients, to appease the heat. After two or three days I dressed the Bone with Dossils pressed out of *spir. vini,* and the Lips of the Ulcer with *unguent. alb. camph.* and attended the Exfoliation. During which I laid open those Ulcers in his Arms by Caustick, eradicated the *Strumæ* with *Merc. præcipitat.* and cicatrized them. I also cut the *Struma* out under his Jaw, and soon cicatrized it. The Ulcer on the Bone leading to the Thumb was a painful work, the Tendon lying over the *Caries*; which put me at last upon the laying open the Ulcer on the inside,

and applying my Medicaments that way, by which I exfoliated the Bone more eafily, and cured the former Opening the while, and this ſoon after. The *Caries* in the Ancle was ſlower in Exfoliation, and did not caſt off its Shell till I touched it with *ol. vitrioli*: after which it ſoon exfoliated, and the Ulcer cured. The Tumour *in Inguine* was embrocated with *valentia digitalis* during the Cure, but did not reſolve till afterwards. The Cure of this perſon was the work of a year, and was ſo doubtful for ſome time, that it was difficult to determine which ſhould be diſmember'd firſt, Hand or Foot. But he happily enjoys the uſe of both, with a perfect good health, to this day.

18. Obſervat. of a *Struma* on the right Foot.

A weak ſickly Child, about 10 years of age, was commended to my care by Dr. *Mapletoft*. She had a *Struma* ſuppurated on the right Foot amongſt the Tendons and Bones leading to the two leſſer Toes: I ſuſpected them corrupted. But there being a neceſſity of opening it, I applied a Cauſtick proportionably, and gave vent to an albuginous Matter, and felt thoſe Bones bare from the *Tarſus* to the firſt Joynt of the Toes. I fomented the Part affected with a diſcutient Decoction, and dreſſed the Eſcar with Lenients, to haſten ſeparation of the Slough: and as it began to ſeparate, I deterged with *Merc. præcipitat.* and the Vitriol-ſtone, making way through the luxurious Fleſh to the *Caries*. Then with Doſſils dipt in *mel roſ.* and *ſpir. vini*, and preſt out, I dreſſed the Bones, and kept the Ulcer ſo dilated, as to ſee the Bones ſo far as they were carious. But in the applying my Doſſils, they preſſing upon the Tendons, rendered the Ulcer painful, and ſubject to great Defluxion of a thin ſerous Matter, and threatened worſe miſchief. To remedy which, I cut off thoſe Tendons, dreſſed up the Ulcer with Digeſtives, and applied Refrigerants externally to reſtrain the Fluxion. At the next dreſſing, finding the Tendons contracted, and the Bones more eaſie to come at, and ſeeing the Exfoliation of them by Medicaments like to be a tedious work, the Matter having made its way under them, threatening Apoſtemations in the Sole of the Foot, I reſolved to attempt them by actual Cautery. To which purpoſe I dreſſed them with Doſſils of Lint, to dilate them more for my view; and the next day I burnt them the whole length; then with my *Forceps* pinched them to pieces, and pull'd thoſe broken bits out: after which I cleanſed the Ulcer, and applied my Doſſils preſſed out of a mucilaginous Decoction between and over the ends of the remaining Bones, dreſſing up the Ulcer with Digeſtives, and applying externally Compreſſes dipt *in aceto* wherein had been infuſed *ſal nitri*, *myrrh.* &c. over which a laced Sock was put on. Thus I reſtrained the Influx, and preſſed forth the Matter from its ſeveral Cavities. Yet I was neceſſitated to make afterwards an Apertion through the Sole of the Foot, and to lay open the Ulcer beneath the Ancle, for the readier diſcharge of Matter. I continued the application of Doſſils preſſed out of *ſpir. vini* to the ends of the Bones, till a *Callus* thruſt forth, fill'd up the void ſpace, and ſupplied the want of the Bones. During this work, the Patient was afflicted either with a Cough, *Diarrhœa*, or Vomiting: in all which caſes Dr. *Mapletoft* aſſiſted with various Preſcriptions, & contemperated the acid quality of her Bloud: after which by good Nouriſhment the Child recovered her ſtrength. She being thus at length diſpoſed to a fair way of Recovery, the Ulcer near cicatrized to the Bones, & there being nothing more to do but to keep it open with dry Doſſils and a Pledgit of *diapompholyg.* with the uſual Bandage, I by degrees left it to her Mother to dreſs, and ſaw the Child afterwards upon her Feet; and at length ſhe recovered. And thus Time may be ſaid to contribute much to the Cure of this Diſeaſe: but without the Chirurgeon's careful attendance, they miſerably languiſh and die. For Amputation in this Diſeaſe ſignifies little, the Ulcers riſing with *Caries* in one Part while you are extinguiſhing them in another.

A Gentle-

A Gentleman sent two of his Sons out of *Ireland* to *Westminster*-School: they seemed both healthful Youths, but soon after the elder of them grew indisposed with a Cough, and died tabid. His Body being opened by his Physician, his Lungs were discovered full of *Strumæ*. The other, a Youth about 12 years of age, had the while a Soar burst forth of his Thigh, and had been dresst by a neighbouring Apothecary. His Brother being dead of the *Kings Evil*, the Relations enquired into the cause of this Youth's Lameness, and discovering several white Swellings about him, brought him to me. That Ulcer which the Apothecary dressed was strumous. He had one *Struma in Perinæo*, another large one upon his right Thigh, and two upon that Leg. On his left Leg there was one upon the head of the *Fibula* near his Knee, another upon the Calf of that Leg, a very large one lying on the outside of that Ancle, one lying upon the middle Toe of the same Foot, and two upon his right Arm. These were all suppurated, and there was great suspicion that the Bone was carious in those of his Ancle and Toe. In order to the Cure, they required all to be laid open. But how the Patient could bear so great an evacuation at once, I much doubted: and to open them one after another, would be a slow way of proceeding, and subject to many inconveniences. I concluded it best to lay them all open at one time, while he was in heart, and had strength to bear it. To which purpose I caused a quantity of soft Caustick to be made, and the next day applied it proportionably large upon every one, so as to take off all their Covertures, and dispose them to a healing condition. For a simple Opening in these Tumours signifies nothing, but to render them so many sinuous Ulcers. The Escars being made, I divided them, and gave vent to the Matter in the several Tumours, then dressed them with Lenients to hasten Digestion. During which Dr. *Tho. Cox* was consulted, who directed this following Course of Physick. ℞ *tamarind. cassiæ recent. extract. an.* ʒj. *fol. senæ* ʒvj. *Rhei* ʒij. *sem. coriand. præparat.* ʒj. *macis* ʒß. *infund. & ebulliant in s. q. aq. pomor. addendo vini albi & succi pomor. an.* ʒij. *Colaturæ* ℔j. *adde syr. violar. & mannæ an.* ʒiß. *clarificetur ovi albumine, & fiat Apozema pro tribus dosibus alternis auroris sumendis.* ℞ *sarsaparillæ* ʒvj. *Chinæ* ʒiv. *ligni lentisc.* ʒiij. *sassafras* ʒij. *ligni guaiaci, eboris, corn. cervi, an.* ʒiß. *passul. enucleat.* ℔j. *cort. Winteranæ, flaved. aurantiorum, citr. nuc. moschat. an.* ʒij. *incidend. incidantur & contund. contundantur, & adde fol. cochlear. marin. ad biduum siccat.* Mvj. *salviæ* Mij. *anthos* Mj. *milleped.* ℔ß. *furfuris frumentac.* Mj. *frust. chalybis recent. num.* iiij. *fiat Sacculus suspend. in cong.* vj. *cereviſiæ dimid. part. lupulat. & sit pro potu ordinario.* ℞ *ligni sassafras* ℔ß. *infund. in aquæ font.* ℔xvj. *dein adde eboris & corn. cervi an.* ʒvj. *fol. agrimon. cochlear. marin. becabung. nasturtii aquatici, an.* Mvj. *cochlear. hortens. berber. an.* Miiij. *passular. enucleat.* ℔ij. *cort. Winteran. cinnamomi, an.* ʒij. *vini albi* ℔iiij. *lactis recentis* ℔vj. *distillentur organis commun. capiat. aq. distillatæ* ʒvj. *extra pastum ter in die, dulcoretur syrupo nostro balsamic.* After the separation of the Escars I rubb'd the *Hypersarcoses* with the Vitriol-stone, and dressed them with *unguent. basilic.* and *Merc. præcipitat.* I cut off the thin Skin which covered the old Ulcer, dressing it after the same manner, and afterwards cicatrized them all, except those upon the Ancle and Toe, with the common Epuloticks, in less than two months. But those being carious were a longer work, the Matter there rising from within the Bones: they were also full of loose Flesh, and that of the Ancle sinuous and accompanied with Fluxion. The end of the *Fibula* being likewise corrupted by the same Matter, I deterged it with the Vitriol-stone and Præcipitate, dilated it to the Bone with Gentian-roots, and fomented the diseased Part with a Decoction of *absinth. centaur. hyperici, flor. ros. rub. balaust. bacc. myrtill.* &c. in Wine and Water; then dressed the Ulcer with Digestives, and hastened the cicatri-

19 Observat. of a *Struma* on the Thigh, and several other Tumours.

cicatrizing of it to the *Sinus* penetrating to the Bone. While that was cicatrizing, I kept the Bone bare with Dossils pressed out of *spir. vini*, and dressed the Bone of the Toe after the same manner, till the Ulcer about it was digested & ready to cicatrize to it. Then I consumed and dried the *Caries* in the Bones of the Ancle and Toe with actual Cauteries, penetrating very deep into that of the Ancle; & repeated this way again and again, till I had wasted the humidity in each Part of it: then dressed them with Dossils of Lint pressed out of Red wine, and the Parts about with Refrigerants. After I had thus calmed the heat in the Ulcers, I kept the Bones dry & bare by the application of Dossils *in spir. vini*, and attended their Exfoliation. But in the mean while a *Spina ventosa* arose in one of his Hands, and the next Toe to the diseased one began to swell. Upon sight whereof Dr. *Cox* was consulted, and prescribed *Calomel*, and other Specificks. The Swelling increasing in the Toe, I proposed the cutting off the other, supposing that to be the cause of it. The Patient appearing unwilling, I brought in Mr. *Hollyer*, who encouraged him; and about a fortnight after I prevailed, and cut it off, and some while after that cut off the other Toe, to save that Foot. I digested and cicatrized these Ulcers to the Bones, but could not make them exfoliate, till I had burnt the ends of them with an actual Cautery; and then they cast off but slowly. The Ulcer in the Ancle I cicatrized down to the Bone, that it lay dry; yet did that Bone make no haste away. During my attendance on these, a Swelling arose on the outside of one of his Arms near the Elbow. He concealed that from me till it was grown very large, and ready to burst. There also arose in one night a *Spina ventosa* on the Fore-finger of the same Hand where the other arose: upon which I applied an *empl. de ranis cum Mercurio dupl.* I laid open the *Struma* upon his Arm with a Caustick, and endeavoured Digestion in it by the method used in the Cure of the other *Strumæ*: but it grew corrosive, & resisted my Endeavours. I consulted Dr. *Cox* again; and considering the acidity in his Bloud, & the approach of Winter, we thought it necessary to attempt somewhat extraordinary, to prevent farther mischief; and together concluded that he should be put into a light Salivation. Accordingly I attempted it with *Merc. dulcis*. But he having taken of that all along, it worked downwards; and he being weak, I durst not move it by Vomit. But by Suffumigation I raised it, and salivated him about 17 days: during which the Ulcer in his Arm cured, & the *Spina ventosa* on his Hand resolved. But that other in the Bone of his Fore-finger increased, with great Inflammation and Tumour. In the declination of his spitting we purged him, and sweat him with a Decoction of *sarsa*, &c. Afterwards he drank his former prescribed medicated Ale, *&c.* recovered daily his strength, and grew fleshy; his Ulcers healed up, and the Bones cast off in the Ancle: so as there remained only a piece of the compass of a silver Two-pence, and that loosened and thrust off by virtue of a *Callus*, which, cicatrizing with the Lips of the Ulcer, made a firm *Cicatrix*. Yet the *Spina ventosa* remained, and raised a small Apostemation on the inside of the Finger. I laid it open by Incision to the Bone, and saw it smooth and white. I penetrated into it with an actual Cautery, and dried it, then dressed it with Dossils pressed out of *spir. vini*, and digested, incarned and cicatrized it to the Bone. Having thereby disposed it to Exfoliation, and concluding him as it were cured, I left him Directions to dress it, and others to judge of my work, I taking the while a Journey into the Country. At my return I received a Letter from his Mother, dated at *Bristol*, that the Bone was cast off, and his Finger cured. Since which time he hath enjoyed good health, and is grown a man.

20. Observat. of a Tumour on the Foot.

A Man aged 23 years, of a tolerable good Habit of body, was diseased with a white Swelling on the inside of his Foot beneath his Ancle down to the Heel.

Heel. There seeming to be Matter in the upper part of the Tumour. I laid it open by Caustick, and discharged an Atheromatous Matter in great quantity, then dressed it up with Lenients. At the next dressing, finding an increase of Matter, I made a search with my Probe, and felt a *Sinus* running to the Heel. I laid it open thither, and dresst up the wounded Lips with a Digestive *ex terebinthina cum vitell. ovi.* After digestion of the Ulcer, I felt the lower part of the Heel-bone bare. I proceeded in the healing of the upper part of the Abscess, by laying the neather part open to the Bone, and dressing the Bone with Dossils of Lint to keep it dry and dilated to my view. I afterwards saw it bare the compass of a Groat: it appeared white and pory. I continued the method of dressing; and after I had dispos'd the rest of the Ulcer to a healing condition, I consulted Dr. *Denton*, who had a kindness for the Patient. He met me at the poor man's Lodging, and saw the Ulcer dressed, and those Inequalities with a *Caries* in the Bone. We applied an actual Cautery to it, and kept it dry with Dossils, according to custom, attending its Exfoliation; the Physician prescribing Internals, and taking care of his health. Thus all things succeeded well, as we thought: but some while after he was seised with a *Phrenitis*. He had no Fever, yet died some days after, notwithstanding all our Endeavours by Bleeding, Cupping, Blistering, *&c.*

21. Observat. of a strumous Tumour in the Heel.

A Child of about seven years of age having been diseased with a Swelling on the outside of her Heel the space of two months, it apostemated, & discharged its Matter, terminating in a painful Ulcer. Her Friends being informed it was the *King's-Evil*, recommended her to me. I saw her Hectick, and upon a search into the Ulcer felt the Bone carious, but had no order to dress her till about two months after; and then I began with the laying open the Ulcer, and bringing the Bone into view. Which after I had done by Dilatation, I perceived it so loose that I could easily have taken it out whole: but it looking white, and seemingly sound, I perforated it with a *Terebra*, and felt the external part of it hard: though after I had pierced that, I felt the interiour parts soft and rotten. I applied a Bolt-cautery into that Perforation, to dry up that humidity: but the Matter spurted out of it. When I saw it irrecoverably lost, I resolved to take it out: to which purpose I invited Sir *Charles Scarburgh*, who upon sight of it agreed to the pulling it out. I laid hold of it with my *Forceps*, and easily drew it forth, not a drop of bloud following it: then dressed up the Ulcer with Sarcoticks, and put on a laced Sock, to bring the Parts close and shape the Heel. Sir *Charles* prescribed Internals, and visited her often. I proceeded hopefully for a month or two: but there had been formerly a cluster of *Strumæ* in that Groin, which had been raised by the anguish of the Ulcer in the Heel, that apostemated, and discharging its Matter down the Thigh, terminated in a sinuous Ulcer, which exhausted her strength so that she died tabid.

22. Observat. of *Strumæ* on the Arms, Leg, and Heel.

A Child about 7 years of age was commended to me by Dr. *Tho. Cox*. She had some *Strumæ* in both her Arms, and one large one lying on the outside of the Calf of her Leg, stretching downwards towards the Ancle. She had another possessing the outside of that Heel. That on her Leg was suppurated: this of the Heel burst some weeks before she came out of the Country, and discharged its Matter by a small Opening. I began with the laying open these two by Caustick. Out of the uppermost I discharged a serous and curdled Matter. After separation of the Escars, I deterged them with *Merc. præcipitat.* and the Vitriol-stone, much suspecting a *Caries* in the Heel. During which her Physician purged her with this: ℞ *julep. cathartici* ℥iij. *syr. de pomis magist.* ℥ß. *aquæ cinnam. hord.* ℥j. *syr. è flor. persic.* ℥ß. *Misc. fiat Potio.* This following Decoction she drank those days she did not purge: ℞ *rad. Chinæ* ℥x. *sarsaparillæ,*

rillæ, raſ. corn. cervi, eboris, an. ℥ß. *infund. & ebull. in aq. font.* ℔iv. *debito tempore, add. rad. tormentillæ, biſtortæ, an.* ℥j. *millefol. ſummitatum caryophyll. mont. flor. hyperici, an.* Mj. *conſ. roſ. rub.* ℥ij. *dactyl. exoſſat. num.* vj. *cinnam. confracti* ℥ij. *ſem. coriand. præparati* ℥iß. *colaturæ* ℔iij. *adde ſyr. de ſymphyto Fernelii* ℥iij. To the *Strumæ* in her Arms I applied *Celſus*'s *Malagma*, and diſpoſed them to Reſolution. The Ulcers in the Leg and Heel being deterged as aforeſaid, they healed in few weeks: but the latter brake out again the third day, and confirmed me that it was carious. I went one morning whilſt ſhe was aſleep, and applied my mildeſt Cauſtick on it; and after digeſtion of the Eſcar I made a ſearch, and penetrated at leaſt half an inch deep into the Bone. I had before given ſuſpicion to the Parents of the *Caries*, and it now appearing to have riſen originally out of the middle of the Bone, I thought it neceſſary that they ſhould conſult ſome Chirurgeon in order to the Cure of it. Mr. *Hollyer* met the Phyſician and my ſelf, and after ſearch declared the *Caries* as I had repreſented it. He approved of the dilating the Ulcer, and dreſſing the Bone dry. *Calomel. Bezoard. min.* &c. were then reſolved on and preſcribed by the Phyſician. The next day I began with the dilating the *Sinus* with prepared Sponge, and having brought it to view, I dreſſed it daily with Doſſils preſſed out of *ſpir. vini*, and the while healed the Ulcer down to the Bone; by which the great diſcharge of Matter which ſo frequently threatens a Hectick in others was prevented, and our work ſucceeded well. But this Child had a Grandmother in the Country, that out of abundance of kindneſs to the Child did much fruſtrate her Cure, not only by her frequent Letters, but alſo by a Woman ſhe ſent up, who pretended to Chirurgery, and ſeeing the Ulcer without inflammation, ſwelling or conſiderable diſcharge of Matter, reported to her that it was an inconſiderable Soar, and would ſoon cure, if the Chirurgeon did not keep it open by thruſting Lint into it. Others both in the City and Country informed the Grandmother, that the caſting off of the Rottenneſs in the Bone was the work of Time, and that the Ulcer needed no ſuch Dreſſings as I applied. Upon which ſhe perſiſted in ſoliciting the Parents to bring the Child back to her in the Country. Theſe things coming to my knowledge put me upon as great a deſire to be freed of the Patient, and made me cautious in the dreſſing the Bone: for it did certainly require the actual Cautery; but I dreſſed it only ſome days with an armed Probe dipt in a Solution of *unguent. Ægyptiac.* and *extract. ſcordii* ſcalding hot, and afterwards with Doſſils dipt in a Compoſition of *ol. myrrhæ, diſtillat.* &c. by which at length the Rottenneſs ſeemed to be caſt off. I likewiſe complied with all their inclinations, leaving out the Doſſils, and permitting the Ulcer to Time. At the firſt leaving out the Doſſils the Ulcer contracted, and being callous, and dreſſed with a Pledgit of *unguent. tutiæ*, retained an Opening large enough to diſcharge its ſmall quantity of Matter: which gave hopes of its being as it were cured. The laced Stocking with Compreſſes under it reſtrained the influx of Humour, and ſtrengthned her Foot ſo that ſhe walked tolerably well on it. But not long after her Bloud fermented, and the Small pox burſt forth abundantly, threatning her life. But ſhe happily recovered out of them: yet from that time her Eyes began to be afflicted with ſharp Defluxions, and the Humours fermented in one of the Glands in her Arm, which was ſeemingly before diſſolved. This put me upon the opening it by Cauſtick, and proceeding in the Cure: which I did, and accordingly ſoon cured it. In order to the Cure of her Eyes, Fontanels were made, Leeches applied behind her Ears, bliſtering Plaiſters to her Neck, Intercipients to her Temples, & Applications were made to her Eyes; lenient Purgatives & Alteratives were alſo repeated: by which ſhe was relieved. But they being weakened by the Defluxion, were frequent-

ly

ly subject to it. Thus she returned with her Parents into the Country, supplied with Directions from hence. After her being there some time, her Heel apostemated, and I was consulted by Letter. But her Grandmother, listening to every Pratler, governed the Child accordingly, and I suppose it continues still diseased.

23. Observat. of an Abscess in the Foot, with rotten Bones.

A Gentlewoman aged 16 years, of a seeming healthy Constitution, was seized with a pain in her right Foot. Various Remedies were applied; a Bone-setter was also employed, but the pain increasing with Tumour, a Chirurgeon was entertained; who, after several Applications, seeing somewhat like a Suppuration, opened it: but from that time it growing more sinuous, and the Swelling greatly increasing, he consulted others of his Profession, and afterward left her to be dressed by one and another. After she had languished near the space of a year and half, I was consulted, & found her Foot lapt up in a Cataplasm. Upon the taking which off, I saw it extream big, and all apostemated, discharging its Matter round, at the outside, inside, Sole of the Foot, and Heel, so that it was easie to pass a Probe through any way. The external Ulcer on the Foot was large, and overgrown with an *Hypersarcosis:* the Bones within the said Foot were most of them carious in one part or other; some of them were rotted to pieces. If this Patient had been tolerably strong of Body, Amputation had been of use: but she was emaciated, and frequently afflicted with a *Diarrhœa*, Cough, and a great weakness and dejection of Appetite. Upon which considerations the Ulcers were superficially dressed with Pledgits of *unguent. Apostolor.* and the Patient perswaded that the Exfoliation of the Bones was the work of Time. But it being visible, that Nature cou'd do nothing in her case without the help of Chirurgery in drying up the luxurious Flesh, and making way to pull out the rotten Bones, and dressing of the others which were less carious with Medicaments accordingly drying; I declined the medling with it, unless I were permitted so to dress it. Not that I had any great hopes that way: but if that were not attempted, she would certainly die. At that instant we dressed up the Ulcer on the upper part of the Foot, which was overspred with luxurious Flesh, with *Merc. præcipitat.* the other with *unguent. diapomphol.* &c. and with Compresses and Bandage endeavoured the pressing out of the Matter, and restoring the Foot to some shape. This method was repeated every other day, with Compresses of Tow pressed out of *acetum* wherein had been dissolved *sal nitri, myrrha, camphora*, &c. But finding the *Fungus* still increasing, we applied the actual Cautery, and thereby at once consumed it down to the Bone, and dressed it up with Lenients. From that day's dressing the Matter lessened daily, and grew well digested. After the separation of these Sloughs, we attempted the remaining *Hypersarcosis* in some parts with the Caustick-stone, & in others with *ol. vitrioli.* We applied Dossils of Lint dipt in *spir. vini* on the Bones, & sprinkled the luxurious Flesh in the circumference with *Merc. præcipitat.* as we saw cause. If this Patient had been any whit stronger, I should have used the actual Cautery oftner, and thereby laid all the rotten Bones bare, and dried them with it: but by reason of her weakness and great indisposition of Body, I proceeded for the most part with Præcipitate, as aforesaid, and dressed her twice a week, or every third day; during which the Foot recovered a better shape, the Ulcers also discharged less Matter, and she was more at ease. Her Physician prescribed Internals, to resist the several Accidents, and corrected the acidity in her Bloud; so that she seemed to recover: but of late, the weather being very cold, she is subject to a *Diarrhœa*, and I fear will die of it.

24. Observat. of strumous Ulcers on the right Foot, Arms, &c.

A sickly weak Child, scarce 7 years of age, having long laboured under a pain and discharge of Matter from many strumous Ulcers, was at last recom-

mended to me. He had one large ſtrumous Ulcer poſſeſſing the inſide of his right Foot, of the compaſs of a Five-ſhilling piece in ſilver, and another on the outſide of the ſame Foot, paſſing its Matter between the Bones leading to the third and fourth Toes into the Sole of the Foot. He had alſo Ulcers in both his Arms near the Elbow-joynts: likewiſe a *Struma* ſuppurated upon the ſecond Joynt of his right Thumb. The middle Finger of his left Hand had a *Spina ventoſa*; alſo the fourth Finger of the ſame Hand was ulcerated, and the Bones rotten from the ſecond Joynt to the Knuckle. In order to the Cure of this Child there was required a neceſſity of nouriſhing it, and of correcting the Habit of body: for he was extreamly emaciated, and the Ulcers were all corroſive and exceeding painful. Upon which conſideration I declined the medling with him till they ſhould conſult ſome eminent perſon of our Profeſſion, who might ſee his deplorable condition, and aſſiſt in the Cure. They ſent for Sir *Fra. Prujean*, who preſcribed medicated Broths, cordial Juleps, Decoctions of *Sarſa*, and other Specificks proper in his weak condition. Mr. *Battersby* was his Apothecary.

I began with the opening that Abſceſs on his Thumb by Inciſion, whence I diſcharged a curdled Matter; and feeling that Bone carious, I dreſſed it up with a Doſſil ſpred with *unguent. baſilic.* and a Plaiſter of the ſame over it: the other Fingers I dreſſed with ſome of the ſame Unguent, mixt with *Merc. præcipitat.* and with *unguent. tutiæ* over all, endeavouring Digeſtion there. My main buſineſs being, to diſpoſe thoſe Ulcers to a healing condition which were in the Foot, which diſcharged ſo large a quantity of Matter, and threatned the corruption of the Bones. I made a ſearch into that Ulcer on the inſide of the Foot, and finding it hollow round, I ſtopt up the Orifice with a Doſſil, and applied a Cauſtick the whole compaſs of it. To the Ulcer on the other part of the Foot I alſo applied a Cauſtick. The next day I divided theſe, and after the ſtuping them with Red wine, I dreſſed them up with Lenients and good Bandage. In the dreſſing of the Ulcer on the outſide of the Foot, perceiving the Matter likely to raiſe an Abſceſs in the Sole of the Foot, I paſſed a Seton-needle between the Bones through that Abſceſs, and prevented its farther inſinuation by keeping that Apertion open. As theſe Eſcars caſt off, I deterged with *Merc. præcipitat.* or the Vitriol-ſtone, and by Epuloticks leſſened the Matter, and cicatrized that Ulcer on the inſide of the Foot in three months. The other Ulcer I cicatrized alſo to the very *Sinus* paſſing to the Sole of the Foot: but one of the Bones being there carious gave me a longer trouble. I dreſſed it dry with a ſmall Doſſil; and by keeping the Apertion open under it *in planta pedis*, I drained the Matter, ſecured the Exfoliation of it, and cured it ſome time after. While theſe Ulcers were digeſting and cicatrizing, I proceeded in digeſting and deterging the other Ulcers in the Thumb and Fingers. That in the Thumb I dilated with Gentian-roots, and afterwards dreſt the Bone with a mixture of *unguent. Ægyptiac. ſpir. vini, myrrh.* and *euphorbium* hot upon an armed Probe, and kept it dilated with Doſſils and Refrigerants over it. But finding the *Sinus* to abound with Matter, and the Bone render'd incapable of Exfoliating, I paſſed a ſmall flat-pointed *Fiſtula*-needle through the *Sinus*, and made way for the Matter to diſcharge into the inſide; then inlarging that Aperture, I dreſſed the Bone through it, and permitted the Ulcer above to cicatrize the while. Having thus diſpoſed this Bone to exfoliate, I laid open the *Spina ventoſa* by Inciſion to the Bone; and after dilatation of the Lips, ſeeing the Bone white, I cut into the thin Shell, and made way for the application of *unguent. Ægyptiac.* &c. by which I dried it within, and diſpoſed it to Exfoliation: and at length a *Callus* fill'd up that Trough, hardned into Bone, united with the Fleſh, and cicatrized firmly.

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The fourth Finger I would gladly have cut off: but not being permitted, I laid it open by Inciſion, pinched out a piece of that Bone next the Knuckle, and exfoliated the reſt. But the Knuckle it ſelf, being rotten, was ſo long in exfoliating, that the Joynt contracted, and the Finger remains ſo weak, that it may well be asked why I took ſo much pains to keep it on. But I have told you, they would not permit it to be cut off. Thoſe Ulcers in his Arms were cured as generally all ſuch are, *viz.* by removing their Coverture, by the application of Cauſticks, and eradicating the ſtrumous; of which I have ſaid ſufficient. Thus this young Gentleman was at length cured. He bears the marks of his Sufferings, but yet without Lameneſs or Deformity, ſave in that little Finger.

25. Obſervat. of a ſtrumous Ulcer on the Thumb.

A little Boy diſeaſed with the *King's-Evil* was brought to me with an Ulcer between the Joynts of one of his Thumbs, and the Bone carious. I laid open the Ulcer on the inſide according to the length of the Bone, and dilated it with Gentian-roots. After Dilatation I dreſſed the Bone with Doſſils dipt *in ſpir. vini*, rubb'd the looſe Fleſh with the Vitriol-ſtone, and applied Epuloticks over it with convenient Bandage. After a few days dreſſing, obſerving the Bone rotten, I took hold of it in the middle with a pair of Nippers, pinched it in pieces, and pulled the bits out; then cleanſed the Ulcer, and dreſſed the remaining ends with Doſſils of Lint as before. By this method of dreſſing the *Caries* ſeparated, and the *Callus* united the ends of the Bone. Upon ſight whereof I left out my Doſſils, brought the Lips together, and with Epuloticks & Bandage cicatrized it firmly. A day or two after the Child came to me with his Thumb bent inward. I reduced it, and ſent for a Tin-man, who made me an Inſtrument, which being put on & faſtned about the Wriſt, retained it ſtraight. So I diſmiſt him into the Country: but by their neglect it is ſomewhat bent.

26. Obſervat. of ſtrumous Ulcers on the Back of the right hand.

A young Gentleman about 14 years of age, of a weak ſickly Conſtitution from his Infancy, was brought to me ſoarly afflicted with ſtrumous Ulcers on the Back of his right hand. They had been of many years continuance, and had rotted the Bones. I ſtopt the Ulcers with Lint, and applied a proportionable Cauſtick over all. The next day I divided the Eſcar, and as it ſeparated, I rubb'd the *Hyperſarcoſis* with a Vitriol-ſtone, and ſprinkled it with *Merc. præcipitat.* Thus I made way to the Bones, and pull'd out what was looſe and lay intangled in the ſpongy Fleſh: the others I kept bare with Doſſils dipt *in ſpir. vini*, applying Pledgits ſpred with Epuloticks, and Bandage over them. After I had dreſſed them ſome days, and had a full ſight of them, I pinched the moſt rotten of them in pieces, dried the others with actual Cautery, and continued the dreſſing the Bones dry as aforeſaid. Mr. *Hinton* was the Apothecary, and ſupplied him with cordial Juleps and ſomewhat Antiſtrumatical, he not being capable of much Purging; nor did he need it, for by the method aforeſaid the Bones exfoliated, and the Ulcers cured in the ſpace of eight weeks with a ſmooth and firm *Cicatrix*. He ſince enjoyeth his health, and ſtrength in his Hand.

27. Obſervat. of an Ulcer on the left Hand.

Whilſt the aforeſaid Patient was under Cure, a poor Woman brought her Child to me with a ſtrumous Ulcer on the left Hand ſwell'd and inflamed. I made a ſearch, and felt the Bone leading to the middle Finger bare. It not being the time of publick Healing, I made Inciſion upon it, fill'd the Ulcer with Doſſils of Lint dipt in *Merc. præcipitat.* and dreſſed it up with Digeſtives and *empl. è bolo.* After Dilatation, finding the Bone looſe, and ſtarted up at that end next the Knuckle, I raiſed it, and ſeparated it from the *Metacarpium:* then dreſſed the Ulcer with Doſſils dipt *in pulv. Galeni*, and from that time deterg'd and incarned; during which it contracted narrow, and cicatrized by the application of the common Epuloticks.

28. Observat. of Ulcers on the Thumb and great Toe.

A Young Woman came out of the Country with ſtrumous Ulcers in the Bones of one of her Thumbs and one of her great Toes, near the laſt Joynt of them. I laid them open by Cauſtick, and dilated them with Gentian-roots and Doſſils of Lint: afterwards I dried them with actual Cauteries, and kept them dilated with Doſſils of Lint preſſed out of *ſpir. vini* ſome weeks. During which time I let her bloud, purged her, and preſcribed Antiſtrumaticks, accordingly as hath been propoſed in the method of Cure. One day in pulling the Doſſils out of the Ulcer in the Toe, a big piece of the Bone came away with them. Finding no more upon ſearch, I permitted that Ulcer to heal up by leſſening the Doſſils. But growing afterwards weary with the expectation of the Bone's exfoliating in the Thumb, I pinched off the rotten part of it, dreſſed the Bone with Doſſils as before, and ſoon after ſaw a *Callus* riſe out of that broken Bone, which uniting with the reſt of the Ulcer incarned it, and it cicatrized in few days after under the Doſſils.

29 Observat. of ſtrumous Ulcers on the Wriſt and great Toe.

A Child about 4 years of age, of a ſickly and indiſpoſed Habit of body, being diſeaſed with ſtrumous Tumours, was commended to me by Sir *Alex. Fraſ.* and Sir *Fra. Pruj.* who were his Phyſicians. One of the Tumours lay tranſverſe the inſide of the Wriſt, and ſeemed to have Matter in it: the other lay upon the Joynt of the great Toe under the Nail. I concluded the Bones foul in both places, and began with that on the Wriſt by the application of a mild Cauſtick. That night the Child was ſeized with a pain in its Side and a Fever. This was thought by the tender Mother to proceed from the application of the Cauſtick: but the Child ſoon recovering out of it, ſhe was ſatisfied by her Phyſicians otherwiſe, and I was permitted to proſecute the Cure as I judged neceſſary. Whereupon I went on in dividing the Eſcar, and gave vent to a curdled Matter, dreſſing it up with Lenients, and provided againſt the next dreſſing a *Fotus* diſcutient and drying. At the next opening I fomented the Tumour, ſprinkled Præcipitate into the divided Eſcar, and dreſſed it up. After ſeparation of the Eſcar, the Ulcer appeared full of a luxurious Fleſh, and the Matter abounded much. I made a ſearch with a Probe, and found a *Sinus* between the *Radius* & *Ulna*, and the Bones carious. I laid open that *Sinus* by Cauſtick, and after ſeparation of the Eſcar deterged with *Merc. præcipitat.* &c. and kept that part dreſſed with Doſſils preſſed out of *ſpir. vini.* There was in the Child ſuch an acrimony in his Bloud, that I could not keep the Ulcer digeſted 2 days, nor check the influx of Matter, it inſinuating it ſelf into the Wriſt in ſpight of all my endeavours. The very tranſpiration behind his right Ear ulcerated, and grew difficult of cure. Upon ſight whereof the Phyſicians preſcribed as followeth; ℞ *antimonii diaphoret. in crucibulo per duas horas ignit. q. ſ. ſumat ad quantit.* gr. vij. *tribus horis medicin. in conſ. anthos* ʒß. *ſuperbibendo aquæ infra præſcript. cochl.* vij. *pro ſingulis vicibus, quarto quoque die ſumat Calomel.* gr. xij. *reſinæ jalapii* gr. iv. *conſ. flor. cichorei q. ſ. & fiat Bolus: abſtineat illis diebus ab uſu antimonii diaphoretici.* ℞ *ſarſaparillæ* ℔j. *raſ. corn. cervi, eboris, an.* ʒiij. *fol. agrimon. veronicæ utriuſque, an.* Miij. *ſantali albi, rubi, an.* ʒij. *liquiritiæ Anglicæ* ℔j. *lactis vaccini cong.* ij. *in organ. commun. diſtill. liquoris diſtillati ſingul.* ℔iij. *adde tabell. ocul. cancror.* ʒij. *ſumat ad quant.* ʒvj. *ſingulis doſibus, addendo aq. cinnam. hordeat. cochl.* ij. During the Patient's taking theſe Preſcriptions, the Matter relaxed the Ligaments and Tendons; inſomuch as, coming one day to dreſs his Hand, I found it crooked, as if it had been falling off from the Joynt. I raiſed it up, and cauſing it ſo to be held, I took off the Dreſſings, and ſaw the Joynt far ſeparated in the upper part. I preſently ſent to Mr. *Stockdale*, and directed him in the making an Inſtrument to retain the lower ſide of that Hand and Arm, and hold it even, and in the mean time I boulſter'd it up. The Inſtrument being made, I placed the Hand

Hand in it, and by Screws fixed to it I kept the Joynt close and firm, and did not take it off till that Ulcer was cured, but proceeded in the way of dressing as above said, laying open some *Sinus's* on the Back of the hand, and making Compression upon others. The carious Bones were dressed with a mixture of *unguent. Ægyptiac. extract. scordii, pulv. euphorbii,* and *spir. vini,* applied hot with armed Probes and Dossils: the luxurious Flesh was dried and consumed by Escaroticks, and the Ulcer cicatrized from the circumference with *unguent. tutiæ*, &c. Having thus in some measure checked the Fluxion, and disposed the Hand to cure, I began with that Tumour upon the Toe by the application of a Caustick, and gave vent to a curdled Matter. Upon search, finding the Bone carious, and part of it lying under the Nail, I was necessitated to apply a small Caustick thereon; which having softned the Nail, I cut it off, made way to the Bone, and dressed it with Dossils of Lint pressed out of *spir. vini*: afterwards I dressed it with a mixture of *unguent. Ægyptiac.* &c. upon an armed Probe hot, and disposed it to exfoliate. This Child had an extream ill Habit of body, the Ulcers frequently corroding one part as it healed in others, or fermenting in his Bloud, and affecting his Lungs or his Bowels with bilious Colicks, *&c.* so that the Physicians met also with much difficulty. But at length an Exfoliation of the Cartilage of the Joynt of the Toe cast off, so also the *Caries* in the Bone, and that Ulcer cured: 2 slips of the Nail also thrust out from the remaining Ligament alongst the sides, but there grew none on the middle. The Ulcers on his Hand and Wrist also cicatrized firm: but the Ulcer between the *Radius* and *Ulna* did not cast off its Bones; but being well digested, and the Bone disposed to Exfoliation, it was thought fit to supply them with Medicaments and Directions, and remove him into his own Country, to take the benefit of the Air. He did so, and Dr. *Barker* of *Newb.* took care of him there. During his being there he recovered a better measure of health, and was afterwards removed into *Northamptonshire*; where I attended him, dressed that Ulcer between the *Rad.* and *Uln.* and left my Servant Mr. *Yo.* who perfected the Cure. Since which time the Patient hath enjoyed his health very well, and the use of that Joynt. And indeed, if the Member be kept in its true position, and the Joynt above it, whether Elbow, Knee, *&c.* be some time stretched out, such young people fail not of the use of their Lims: but where the position of the Member is neglected, the Cure succeeds ill, and a Lameness remains ever after.

30. Observat. of strumous Ulcers on the Foot with rotten Bones.

A young Gentleman aged 12 years, being much emaciated & diseased with the *King's-Evil*, was brought to Dr. *Bate's* house, where Dr. *Willis* and my self met at the Consultation. He had an Ulcer on the outside of his left Foot. Upon search with a Probe the Bone leading towards the little Toe felt carious the whole length; the Foot was much swelled, & seemed to have several Abscesses lying amongst the Bones of the *Tarsus* and *Metatarsus*. The way I proposed of Cure was, by the laying open the Ulcer, and exfoliating of that Bone, and so to proceed in the rest of the work as I saw cause. This being approved of by Dr. *Bate*, he prescribed a lenitive *Bolus* with a few grains of *Calomel.* to be taken once in 4 days, and *Bezoard mineral.* with a Decoction of *sarsaparill.* and *lign. lentisc.* &c. to be drank the intermitting days. The next day I began my work with the application of a Caustick, and inlarged that Ulcer; then laying the Bone bare, I found it rotten the whole length, and a *Sinus* stretching transverse over the Foot, from whence a quantity of Matter flowed, which being retained by the foresaid Bone, threatned a corruption of the rest, as also a passing of its Matter down to the Sole of his Foot. Upon which consideration I thought it necessary to remove the lower rotten Bone by pinching it in pieces: but it not yielding thereto, I sawed it, and took it out.

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By the removal of this rotten Bone the Matter had a free discharge,& I had the conveniency of applying my Medicaments to exfoliate them, and to cleanse the Ulcer; which I did by *mundif. Paracelſ. unguent. fuſc. tinctura myrrhæ*,&c. and digeſted the Lips of the Ulcer with *unguent. baſilicon*,and cicatrized them with *unguent. tutiæ* and the Vitriol ſtone. During which I applied Stupes of Tow preſt out of a Solution of Nitre and Myrrh in Wine-vinegar, and by Compreſſion with a laced Sock thruſt the Matter out of its ſeveral Cavities. Yet in a declining part of the inſide of the Foot I afterwards feeling a ſmall collection of Matter which could not be diſcharged that way,I gave vent to it by Cauſtick, and digeſted it. After I had thus made way for diſcharge of the Matter,I reſtrained theHumour from flowing into the Foot,and reſtored it to its natural figure, having no more left to do,but attend the Exfoliation of the ſeveral Bones. Dr.*Willis* began to purge the Patient with the above-preſcribed *Bolus:* but there happening thereupon a Superpurgation, he declined the repeating of that Purge,& omitted the proſecuting of the aforeſaid Courſe preſcribed by Dr. *B.* upon which the Matter fermented,and cauſed a pain in the Knee of his other Leg. Dr.*Bate* being deceaſed, Dr. *Tho.Cox* was conſulted,and adviſed the repeating of *Calomel.* &c. But it not being proſecuted,other pains aroſe. During which it hapened that an old Gentleman came in, who had formerly lived in the *Barbadoes*,and practiſed Chirurgery amongſt his Slaves. He deſired to ſee our Patient dreſſed,& ſeeing the Foot without Tumour,and the Matter little and well digeſted,confidently undertook the Cure,by the giving him a Wound-drink, and applying an Ointment to the Ulcers. The Parents rejoycing to hear their Son might be ſo eaſily cured, deſired me to give way to it, and permit my Kinſman *Jaques Wiſeman* to dreſs him with that Unguent, (which was no other than the Juice of Clowns All-heal made up with Butter or Hogs-lard.) I complied with their deſires,but withal adviſed them to leave off the uſe of the Bandage, knowing well that it would ſwell, and diſcourage the Undertaker. But they continued it; and after ſome of their Servants had learned how to dreſs him, they diſmiſſed my Kinſman. I would gladly have finiſhed the Cure, but I took my leave by the way of a Letter, wherein I predicted what followed: for what could be expected from greazy Ointments,but corruption of the Bones? This young Gentleman being thus taken out of my hands, gave occaſion to ſome envious men of my Profeſſion to report it otherwiſe to my prejudice; wherefore I have here inſerted the Letter I received from his Father in anſwer to mine.

Sir, I do not doubt but you uſed your beſt Endeavours, and obſerved thoſe Rules and that method which your judgment thought beſt for the Cure of my Son; and conſequently you may well have thoſe Apprehenſions which you yeſterday ſignified to me both by diſcourſe and Letter, that the way he is now in may be prejudicial, if not ruinous to him. Upon which intimation you will eaſily believe I am in a ſtreight, and cannot regulate my actions with that clearneſs and ſatisfaction as I deſire. But having heard of divers inſtances of undoubted truth, and from Perſons of Honour and Quality, of Cures that to their knowledge had been wrought by plain and empirical Medicines in ſhort time, and with much eaſe, after the means more potent and noble, and managed by expert Artiſts, had been long tried, and proved ſucceſſleſs; I reſolved, though with ſome reluctancy, to run the like adventure, and make an eſſay of Col. Midd.*'s Receit, and ſee whether my Son may have the like good fortune. And being entred into that Courſe, without any diſcouragement hitherto diſcernible, and being to leave the Town to morrow, I cannot now of a ſudden recede, and take up a new reſolution. I ſhall leave my Wife here with the Child for ſome weeks: in which time if any Alteration appear*

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to make it evident that we are in an Error, I ſhall thankfully accept your offer to rectifie us, and ſet us in a more rational way. In fine, if the iſſue be unfortunate, I muſt confeſs that you have diſcharged your duty in giving us the advertiſement, and that nothing of blame can reflect upon you; the fault as well as the loſs will be our own.

Sir, I am your very affectionate
Friend and Servant,
W. Y.

31. Obſervat. of ſtrumous Ulcers with rotten Bones.

A Child of about 5 years of age came out of the Country the Summer after the Burning of the City of *London*, with an Ulcer in his Heel and another in his Arm, with carious Bones. His Friends conſulted a Chirurgeon of their acquaintance, who perſwaded them to return with the Child into the Country, telling them Time would cure it. But that proving an ill Chirurgeon, and not performing it, they brought the Child again about a year after to *London*, and came to me with him. He was then languiſhing under a hectick Fever, the Ulcer in the Heel was very large, and the Bone totally rotten. There was alſo another upon the *Os aſtragali* as bad, and others upon thoſe Bones which lead to the ſecond and third Toes. On the outſide of the other Leg there was a ſinuous Ulcer, and the lower part of the *Fibula* was carious, as likewiſe was the inſide of that Ancle. The right Hand was ulcerated from the Wriſt up the Arm between the *Radius* and *Ulna*, making Ulcers on both ſides of the Bones: they were alſo carious the length of between two and three inches: his Neck was alſo full of *Strumæ*: and to theſe he had an *Ozæna*, and a thick chapt Lip. I would gladly have declined the medling with him, as being my ſelf then much indiſpoſed, and the more at the ſight of this miſerable creature, whoſe condition I knew not how to help. For to propoſe Amputation of a Leg or Arm in this Patient, might have ſavoured of much cruelty, but availed nothing, while the other Parts were ſo diſeaſed. But his Friends would have no nay: they brought him to my houſe, and obliged me to dreſs him. I began my work with that Ulcer beneath the Ancle on the inſide of the Foot. The Opening being ſmall, and the Ulcer and *Caries* large underneath it, there was a neceſſity of laying it open to come to the Bone; Injections ſignifying nothing there but to make the Ulcer more ſinuous: yet the laying it open was hazardous, by reaſon of the Artery which paſſed over the carious Bone: but there was no avoiding it. Therefore placing the Child upon a Table near me, I applied a Cauſtick upon the Abſceſs. Then, while it was working, I dreſt the other Ulcers, which was at leaſt an hour's work. That done, I cauſed an actual Cautery to be put into the fire, ready for my uſe in caſe of need, then took off the Dreſſings from the Foot; and finding the Cauſtick had work'd as I deſigned, I made Inciſion overthwart the Eſcar to the Bone, by which I divided the Artery. The bloud burſting out with great force, I fill'd up the Inciſion with Doſſils dipt in *pulv. ſine pari Jo. Ardern.* with Emplaſter over it. Whilſt I was binding it up, I bethought my ſelf, if by any accident it ſhould chance to burſt out again, the Child might bleed to death before I could have notice; or they might alarm me in the night upon a ſuſpicion of his bleeding, when I ſhould not be ſo provided to reſiſt the Accident as now I was: and withal conſidering, I might at the ſame time ſecure the bleeding, and dry the *Caries* in the Bone, I unbound it, threw out the Doſſils, and applying the actual Cautery in the place, ſtopt the bleeding, and dried the *Caries*. That done, I dreſſed the Bone with Doſſils dipt in a new-laid Egg, and applied on the Eſcars *unguent. refrigerans Galeni cum empl. è bolo*, with Compreſs and Bandage dipt in Oxycrate. After which they carried him

him home. Dr. *Quarterman* was their Phyſician, and preſcribed him Antiſtrumaticks, *&c.* The Ulcer in the Ancle bled no more, nor was that Bone much troubleſome after. We laid open the inſide of the Arm by Cauſtick; and feeling the Bones carious, and the great Artery lying in our way, we cut off that, and by the actual Cautery dried it; then made way to the other carious Bones, and laid them open. Then cutting open the outſide of the Heel, and ſeeing that extreamly rotten, in ſome parts quite through, we opened the other ſide, took part of the Heel-bone out, and dried the remainder with the actual Cautery, then dreſt the Ulcers with *mundif. Paracelſi* with and without *Merc. præcipitat.* Some of the Bones leſs carious we dreſſed with *extract. ſcordii*, and others with *unguent. Ægyptiac.* and *pulv. myrrhæ*, &c. applying *unguent. tutiæ* over the tender Lips. To the *Ozæna* we uſed Injections of *decoct. hordei cum ſem. cydon*, &c. and *ol. amygd. dulc.* to bring off the cruſts: then with Decoctions of *rad. biſtort. tormentill. rad. ireos, flor. roſ. rub.* and *bacc. myrtill.* decocted in a Chalybeat-water, we dried the Ulceration. To his Lip we uſed a *Fotus* of an emollient Decoction, alſo a *Pomatum* with *arcan. corallinum.* Thus we proceeded with great induſtry: but as ſome Parts cured, others brake out, and the Patient died in a *Maraſmus* after all our Endeavours. Yet that you may not be diſcouraged in giving your aſſiſtance towards the curing theſe ſort of Ulcers with *Caries*, I have here inſerted one Obſervation as it was communicated to me by Mr. *Clarke*, a Chirurgeon dwelling at *Bridgenorth* in *Shropſhire*, who was ſometime my Servant.

Honoured Maſter,

You may pleaſe to remember that about 2 years and a half ſince I writ to you concerning a Scrophulous perſon, who was extreamly diſeaſed, and had paſſed under ſeveral hands unſucceſſfully. To which you returned me a long Letter of advice. He had a large hard Tumour in the right Inguen, *which reached down in ſcirrhous Knots all that Thigh and Leg. He had many Ulcers on that Foot, one whereof paſſed through the Ancle, and rotted part of the* Os naviculare. *There was an Ulcer on his Heel, and another upon the* Tarſus; *in both which the Bones were foul. He had alſo many Ulcers upon the* Metatarſus. *You were pleaſed to preſcribe him a purgative Pill, with* Merc. dulcis *to take twice aweek, alſo a* decoct. ſarſæ, *&c. for his uſual drink, with* antimon. diaphoret. *to ſweat thrice aweek. All which we obſerved. The Ulcers were laid open as you adviſed, and thoſe Bones I could lay bare were dreſſed with* pulv. rad. ariſtoloch. rot. euphorb. *&c. by which they were exfoliated. I kept the Ulcer in the Ancle open with a Skain of ſilk the ſpace of ten weeks, and ſyringed it daily with a Tincture of Myrrh.* in aq. Mercurial. *and* aq. calcis, *till the Bones caſt off, then healed it. The aforeſaid Water ſerved me to deterge and cure the other Ulcers. The ſcirrhous Tumours and Knots were embrocated with* unguent. ad ſtrumas, *and at length reſolved thereby. He walks abroad with an under-hand Staff and laced Boot with a high heel, and is ever bound to thank you for it, and ſo is*

Bridgenorth,
Novemb. 26. 1675.

Your moſt obliged

Servant,

William Clarke.

CHAP.

Chap. V.

Of Ophthalmia.

SOre Eyes are frequently a Species (as I have said) of the *King's-Evil*, and take their beginning from vicious Humours inflaming the *Tunica adnata*, which increasing doth also sometimes affect the other Tunicles, as the *cornea*, &c. with great pain, tension, pulsation, *&c.* whence *Pustulæ* arise and suppurate, terminating for the most part in Ulcers, which leave hard *Cicatrices*, and by reason of the sharp Defluxion falling upon the edges of the Eye-lids, do make a Bleardness: upon which account these Inflammations are generally called *Lippitudo* by the *Latins*.

Difference. This differeth from the common *Ophthalmia*, in that it is periodical, and is accompanied either with strumous Swellings in the Neck, a thick chapt upper Lip, *Ozæna*, or some other Accident.

Causes. The *Causes* are the same with those of the *King's-Evil*; yet may it be more particularly imputed to abundance of humidity repleting the Head, and descending to the weak Eyes.

Signs. The *Signs* of *Ophthalmia* are apparent by what I have already delivered of the Disease. Those of the Causes are as followeth. If the *Ophthalmia* be from Plenitude, the Face is high-coloured, the Eye-lids somewhat swelled and inflamed, the capillary Veins large and full; yet the Humours are not so apt to fret as in other cases, nor is the pain extreamly vehement. If the Disease be from Choler, the Visage is not red, but the pain is sharper, and with Excoriation of the Eye-lids. If the *Ophthalmia* proceed from Pituitous Humours, all the forementioned Symptoms of Inflammation, pain, *&c.* are more remiss, and the lacrymal Humours are not corroding, unless there be a mixture of saline Humour joyned with it. Whether an *Ophthalmia* may arise from Melancholy, I doubt; but if it do, there is small fluxion or pain. That proceeding from the *King's Evil* is of an acid quality, with sharp fluxion and pain; the Eye-lids are also more apt to be gummed together with a viscous Humour than they are in those from the other aforesaid Causes. Whether the Humours affecting the Eyes flow from the external or internal Vessels, may be discerned by their complaint. For if they flow from the *Pericranium*, &c. the pain, pulsation, with heat in their Forehead and Temples, will demonstrate it: but if the contrary, the pain will be more intense, and deeper within amongst the Membranes; there will be also an itching in the Palate and Nostrils, with frequent Sneezing.

The Time of the Inflammation ought also to be considered in order to the Cure, and is thus discerned: in the beginning the Eyes look red, and the Humours distilling upon them are thin; in the augment, heat and pain increase; in the state, the accidents of inflammation and pain are great, and the Humours thicken, and do gum the Lids together, especially in the night; in the declination, the fluxion, pain, *&c.* do visibly diminish.

Prognostick. *Ophthalmia strumosa* is of most difficult Cure, & in Children very vexatious, by reason of the humidity they abound with; also because of their frowardness, and incapacity of taking proper Remedies, or admitting external Applications:

plications: and in consideration of the laxity of their Eyes, they are subject to relapse upon every little disorder. Those arising by consent from the internal Parts, the *Dura mater*, &c. are incident to more grievous Symptoms than those which proceed from the *Pericranium* and other external Parts.

If in an *Ophthalmia* the pain, *&c.* persevere any long time, there is danger that the Tunicles of the Eye may be corroded: and if the *cornea* happen to have been long ulcerated, a Blindness followeth, or at least a Dimness of sight, by reason of the condensation of a gross Matter about the Pupil.

Cure. In order to the *Cure*, their Diet ought to be of Meat of easie digestion, as hath been shewed in the method of Cure of the *Evil*, with great moderation avoiding all sharp, salt, hot or spicy meats, and such as may beget Crudities. In the beginning of the Disease Wine is forbidden. Hydromel is allowed: but in hot bilious Defluxions *decoct. hordei cum tantillo aq. cinnam.* is only permitted. The Air ought to be pure and temperate; that which is windy, dusty or smoaky, being offensive to the Eyes; so is Sun-shine: therefore we advise them to wear somewhat of Silk or Linen before their Eyes, commonly a piece of green Sarsenet. Exercise of all kind is forbidden, and Quiet enjoyned. Sleep is in these Diseases necessary, when they can get it, the Eyes enjoying Quiet the while, which mightily conduces to their Recovery. Their Bodies ought to be kept soluble by Clysters and lenient Purges; strong Catharticks being not approved of in Diseases of the Eyes. Yet according to *Hippocrates*, *Ophthalmiâ laboranti alvi profluvium bonum est*: and we sometimes see after a Superpurgation the Fluxion much diminished: but that may rather be imputed to Nature, which so disburtheneth her self. In prescribing to these Diseases the Constitution must be considered, & after Purging Anodynes are necessary, to quiet the Fermentations raised thereby; to which purpose conduce *syrup. paralyseos*, *de papavere erratico*, *de papavere compositi. Mesuæ*, of which this is the Prescription. ℞ *capitum papaver. albi & nigri cum suis seminibus an.* ʒvj. *&* ʒij. *capill. Veneris* ʒxv. *glycyrrhiz.* ʒv. *jujubar. num.* xxx. *sem. lactucæ* ʒv. *malvæ, cydon. an.* ʒvj. *coq. in* ℔viij. *aq. font. ad medietatis consumptionem; post modicum* ℞ *colaturæ* ℔iij. *penidiorum, sacchar. alb. an.* ℔j. *fiat Syrupus.* All the testaceous Powders prescribed in the general Cure of *Strumæ* are here of use, also *Calomel. Merc. præcipitat. alb. Merc. diaphoret. bezoard. mineral. antimon. & ceruss. diaphoret.* avoiding Salivation, by purging the Mercury off sometimes with *infus. rhab. syr. rhab. & de cichoreo cum rheo, diasereos*, &c. In the declining of the *Ophthalmia*, and indeed after general evacuation and diversion of the Humours, you will find bathing the Body in Water lukewarm of great advantage to contemperate hot and sharp Humours, if the Season of the year and their Age be capable of it.

Derivation is necessary in this Disease; and if there be Inflammation, or that Bloud abound, they may bleed by Lancet in the Arm, Neck, *&c.* otherwise by Leeches behind the Ears. Shaving the Head, Blistering, Cupping, Fontanels and Setons are of frequent use: but Fontanels made in the Neck do often cause *Strumæ* to arise thereabouts; therefore Sir *Fra. Prujean*, some years before his death, prescribed them behind the Ears.

In the application of external Remedies to the Eyes, we ought not to be over-forward; for the mildest Medicaments dropt into them prove generally offensive in the beginning of Inflammation: besides, we see in our daily practice, that the less disturbances of them go off by general Evacuation and Derivation; and that those Eyes have fared worst which have been most treated by Topicks. We may apply Intercipients upon the Temples, of Mastick, *Takamahaca*, *empl. ad herniam*, &c. Frontals may also be applied of *bol. Armen. sangu. dracon. balaust. cum aceto & albumine ovi.* If you judge the Humour to flow

flow from the *Pericranium* and external Parts, you may apply Aſtringents to the Jugulars and round about the Neck. But if the Inflammation be ſudden, and the pain vehement, after Evacuation by lenient Purgatives, or a Clyſter and Venæſection, you may have recourſe to Anodynes; amongſt which Breaſt-milk and the White of a new-laid Egg have precedency, applied externally, or dropt into the Eye. There are Objections made againſt the uſe of them both, *viz.* that by the dropping of Milk into the Eye it may curdle, and by its acrimony offend the Eye: ſo alſo the White of an egg may by its incraſſating quality increaſe the heat in them. To prevent theſe inconveniences, you may mix them with Roſe-water, or uſe them with more caution. In the preparing Medicaments to drop into the Eyes, the Ingredients mixed with the *Collyria* ought to be well waſhed, that they may be without acrimony, and ſo ſubtilly powdered, as that they be not in the leaſt gritty. The Decoctions ought alſo to be cleanly made: and in the dreſſing of the Eyes there ought to be eſpecial care in cleanſing them and their Lids of viſcous Matter; to which purpoſe an Eye-cup is moſt neceſſary. This being obſerved, you may apply mucilaginous Liquors, or Cataplaſms; for they are good Anodynes. ℞ *mucilag. ſem. pſyllii, cydonior. cum aq. roſ. & papaver. extract. an.* ℥j. *camph. croci, an.* gr. vj. *album. ovi, Miſc.* Or, ℞ *medullæ panis alb. in lacte & aq. roſ. maceratæ, pulpæ pomorum dulc. an.* ℥j. *mucilag. ſem. pſyllii & fænugræc. aq. papaver. extract. an.* ℥ß. *vitell. ovi, camph.* gr. vj. *croci* ℈j. *Miſc.* If pain be vehement, you may add to either of them two grains of Opium, or a *mucilag. ſem. papaver. albi* extracted *cum aq. plantag. roſ.* &c. applied in the form of a Cataplaſm.

But if the *Ophthalmia* be not accompanied with grievous pain, you ſhall then conſider whether the Diſeaſe be in its beginning, ſtate, or declination, & proportion your Medicaments accordingly. For let the Empiricks boaſt of this or that univerſal *Collyrium*, they cannot cure theſe *Ophthalmiæ* with any one particular Medicament: for in the Beginning of Inflammation they require Repellents, and in the increaſe ſomewhat of Reſolvents ought to be mixed with them; in the State they ought to be treated with Reſolvents of a digeſtive quality, and in the Declination with Reſolvents and Deterſives of an exſiccant quality. Authors do not all agree of the ſet time when we ſhould begin our Applications to the Eyes; but all of them concur in the proceeding firſt with general Evacuation and Diverſion of the Humour, and afterwards, ſuppoſe about the third day, to uſe *Collyria*. They ought to be moderately repelling; not too ſtiptick, leſt the Tunicles of the Eyes be thereby dried, and prohibit tranſpiration, and ſo increaſe the pain.

We begin with Repellents: of which ſort the ſtrongeſt are the Whites of new-laid eggs beaten to a froth with a piece of Alum. You ought to apply it to the Eye-lids, the Patient lying upon his Back the while. This is only proper in the beginning of hot Defluxions. ℞ *troch. alb. Rhaſ.* ℥ß. *bol. Armen.* ℈j. *aq. roſ. rub. lact. muliebris, an.* ℥jß. mix them in a Stone-mortar, and ſtrain it out for uſe. ℞ *pulpæ pomor. acidor. vel cydonior. coct. in aq. roſ. & plantag.* ℥ij. *ſumach, balauſt. flor. roſ. rubr. pulver.* ℥ß. *far. hordei* ℥j. *ſucc. ſedi maj. plantag. an. q. ſ. Miſc. & fiat Cataplaſma.* After the taking off the Cataplaſm, foment with this: ℞ *fol. plantag.* Mj. *flor. roſ. rub.* Pj. *balauſt.* ℥ij. *coq. in aq. equiſeti & roſ. an. q. ſ. fiat Fotus.* The Third day, or accordingly as the Diſeaſe indicates, we add Diſcutients to the Repellents. ℞ *flor. ſtœchados, ſambuci, an.* Mß. *flor. roſ. rub.* Pj. *coquant. in aq. plantag. pro Fotu.* ℞ *colaturæ ſuperſcript.* ℥iij. *ſarcocoll.* ℥j. *lap. tutiæ præparat.* ℥ß. *nutriatur in mortario marmoreo, & coletur pro uſu.*

In the State of the Diſeaſe Authors generally apply Reſolvents, viz. *ſem. lini, fænugræc. althææ, flor. melilot. chamæm.* &c. decocted

in Water, and applied warm with Stupes. It assuaged the pain by breathing out the gross Matter. The *Collyria* may be a Solution of *thus, sarcocoll. sacchar. albi, lap. tutiæ*, &c. in the preceding Decoction: or, ℞ *decoct. sem. fœnugræc.* ʒiij. *thuris, sarcocollæ, an.* ʒß. *croci* Əß. *Misce probe, & oculo instilletur.* To prevent the gumming of the Eye-lids, cut a piece of Sponge fit to cover the Eye, and at night, when the Patient is in bed, dip it in *aq. verbenæ, euphrasiæ, rosar.* any one of them, and lay it wet upon the Eye, the warmer the better, so it do not scald. This will keep the Eye cool, and suck up the moisture.

In the Declination, ℞ *tutiæ præparatæ* ʒj. *aloes lotæ* ʒß. *sacchar. alb.* Əij. *infund. in aq. fœniculi, verbenæ, euphrasiæ, rutæ, an.* ℥j. *postea colentur, & ad usum serventur*: or, ℞ *vitrioli albi, tutiæ præparat. an.* ʒj. *camphoræ* Əj. *infund. in aq. ros. pro Collyrio.* In case the Tunicles of the Eye grow too dry, ℞ *folior. endiviæ, nymphææ, lactucæ, solani, flor. violar. ros. rub. an.* Mj. *radic. althææ*, ʒjß. *sem. fœnugræci* ʒij. *coq. pro Fotu.* After the use whereof you may apply *unguent. tutiæ mag. ad oculos*; or this, ℞ *butyri Maialis sine sale, unguent. rosat. lot. in aq. ros. an.* ʒjß. *lithargyr. aur. & argent. an.* ʒj. *aloes* ʒij. *camphoræ* ʒß. *Misc. S. A. in mortario plumbeo pro usu.* These are to be put into the Corners of the Eyes at night going to bed; and in the morning cleanse them with this or such like: ℞ *aq. agrimon. rosar. lactis muliebris, an. part. æqual. Misc.* In other cases greazy Unguents ought not to be applied to the Eyes.

1. Observat. of *Ophthalmia.*

A Child about six years of age, heretofore subject to the *King's Evil*, was the last Summer distempered with a heat scattering over her Head, Face, Neck and Shoulders, which meeting with some check returned inward, and affected her Eyes with Inflammation and great Fluxion. Upon notice thereof, I directed a Clyster of Milk, Sugar, and a little Salt, applied *empl. ad herniam* upon her Temples, and prescribed the dressing her Eyes with Breast-milk *cum albumine ovi conquassat.* and Cloths to be dipt in the same, to lie on all night. The next morning Leeches were applied behind the Ears, and 4 or 5 ounces of bloud was taken away; that day also a Clyster was again repeated, and the Applications to the Eyes continued. The next morning were given her 7 gr. of *Calomel.* with 15 gr. *sacchar. alb.* which purged her 4 times. That night she took of the anodyne Syrup *cochl.* i. *in aq. papaver.* ʒiij. *aq. cinnam. hordeat. cochl.* ij. also a Cataplasm *ex pomis acid.* &c. was applied. She rested well that night, and in the morning her Eyes were marvellously recovered.

2. Observat. of *Ophthalmia.*

A Child of about ten years of age, having been long diseased with sore Eyes, and passed through most of the Empiricks hands in the Town and Country, came to me, with great Fluxion, *Pustulæ* and *Cicatrices* from former Eruptions. She had also some small Glands on both sides of her Neck. I applied Plaisters upon her Temples to resist the Influx, and made Fontanels behind both her Ears by Caustick. I likewise fomented her Eyes with a Decoction *ex flor. sambuci, chamæm. stœchad. ros. rub. & furfuris*, and brought her an Eye-cup, and a *Collyrium* of *sarcocoll. lap. tutiæ & sacchar. in aqua pomor. dulc.* to wash her Eyes. I purged her the next morning with *infus. senæ, rhab.* &c. *cum syrupo ros. & agarico*, and laid her to rest at night with an Anodyne draught. The day after I drew some bloud by Leeches behind her Ears; and the next day prescribed her a medicated Ale of *sarsa, lign. lentisc.* with *millep.* &c. for her constant Drink; with which she took *antimon. diaphoret.* Once in 4 or 5 days I purged her with *Merc. dulc. cum sacchar*; and those days she did not purge, I bathed her in Milk and Water temperately warm. I did not use many *Collyria.* A Solution of *lap. tutiæ cum sacchar. in aq. plantag. & ros.* finished the Cure; which indeed was done by contemperating the acid Humours.

Humours. There remained some *Cicatrices*, which I left to wear off, it being the work of Time; which accordingly effected it. The Glands did resolve during her Course of Physick, and she continueth very well to this day.

3. Observat. of *Ophthalmia.*

A Child aged about 10 years was diseased with a sharp Defluxion on both her Eyes, with an *Ozæna*, and thick chapt upper Lip. She had also a Fontanel in her Neck, which was much inflamed, and many Wax-kernels about it: which I supposing to arise from the anguish of it, threw out the Pea, and dressed it with Lenients, at the same time applying Caustick behind her Ears. I also applied *empl. ad herniam* to her Temples, and prescribed a Fomentation and *Collyrium*, as it is set down in the method of Cure in the State of the Fluxion. I advised the snuffing up of *ol. amygd. dulc.* to free her Nostrils of the crusty Matter which hinder'd her breathing, and afterwards prescribed her a *decoct. hordei cum radicibus althææ*, which was cast up her Nostrils with a Syringe, desiring her to forbear picking of her Nose. Her Lip was fomented with some of the said Decoction, and anointed with this following Unguent: ℞ *sevi vitulini & agnini an.* ℥jß. *unguent. refrig. Galeni* ℥j. *succ. plantag. solani, an.* ℥x. *coquantur ad succor. consumptionem: Colaturæ adde cerussæ* ℥ij. *plumbi usti* ℥vj. *litharg. aur. & argent. an.* ℥ß. *antimonii, tutiæ, an.* ℥iij. *olei vitell. ovor.* ℥x. *ceræ alb. q. s. fiat Unguentum S. A.* During these Applications a Clyster was prescribed, and she was purged with *infus. senæ, rhab.* &c. and afterwards *Calomel.* was appointed her once in 3 or 4 days, also a medicated Ale of *sarsa, lign. lentisc. milleped.* &c. for her constant Drink. *Bezoard. mineral.* was likewise prescribed those days that Purging was intermitted. By this method the Fluxion was removed from the several Parts, and the Ulcerations dried up: those in her Eyes by *Collyria* of *lap. tutiæ, calamin.* &c. and the *Ozæna* by *decoct. rad. tormentill. bistort. sumach, balaust.* &c. *in aq. chalybeata.* Towards the end of her Course of Physick, observing her Skin rough and dry, I caused her to be bathed in Water temperately warm, with a bag of Bran to sit upon. A *Cicatrix* remained upon one of her Eyes, but it afterwards wore off.

4. Observat. of *Ophthalmia.*

A Child of about 5 years of age was brought out of the Country to me with great Defluxions in both his Eyes, and his upper Lip swelled from the same Humour. He had passed through various hands unsuccessfully in the Country. I purged him with *infus. rhab.* in small Beer, *cum syr. diaser.* and once in 2 or 3 days gave him a few grains of *Merc. diaphoret.* and some nights an anodyne Syrup *in aq. papaver.* I also prescribed a *Fotus* and *Collyrium*, as is set down in the method of Cure in the State of the Fluxion. By which method the Fluxion ceased, and he recovered in 10 or 12 days. A few days after he fell sick of the Small-pox, of which he likewise recovered. I then designed the Purging him: but his Friends not thinking it necessary, I desisted from visiting him, till his Eyes inflamed again; and then they sent for me. I purged him with Whey, Manna, and *sal prunell.* applied Repellents to his Forehead and Temples, and drew blood by Leeches behind his Ears; also repeated lenient Purgatives with *Calomel.* once in 3 or 4 days, and made Fontanels behind his Ears; his Hair was shaved off his Head, and a quilted Cap was put on. Anodynes were dropt into his Eyes, according to the method proposed in painful Defluxions; by which they were eased. But soon after he fell into a *Diarrhœa*, by which he was perfectly freed of the Defluxion on his Eyes and Lip. But the *Diarrhœa* terminated in a *Dysenteria*, and weakened him much. I prescribed him *decoct. corn. cervi usti*, with a few *rad. scorzoneræ, cinnamomi*, which he drank with Milk. Clysters of Milk *cum vitell. ovi* were frequently administred, and a few drops of a liquid *Ladanum* at night in the foresaid Decoction.

coction. Afterwards I ſtrengthned his Bowels with *elect. diaſcord. conſ. roſ. rub. pulv. Rhei*, &c. by which he was alſo moderately purged. He afterwards recovered ſtrength by continuing his Milk-drink. During his *Diarrhœa* I healed up the Fontanels behind his Ears, and after his recovery made him a Fontanel in one of his Arms, and diſmiſt him. He was afterwards in the Country ſubject to ſome little weakneſs in his Eyes at times, upon ſome accident of cold; upon which account his Friends conſulted me: but of late years he hath been very well.

5. Obſervat. of *Ophthalmia.* A Child aged 3 years was brought to *London* to me with ſharp Defluxions upon both his Eyes, and *Strumæ* on both ſides of his Neck. I applied *empl. ad herniam* to his Temples, fomented his Eyes with Repellents and Diſcutients, and made Fontanels behind both his Ears. The ſecond night after I gave him viij. gr. *Merc. diaphoret.* and in the morning purged him with Rhubarb-drink, repeating this method once in 5 days: and on the intermitting days I gave him a ſcruple of Dr. *Walter Needham*'s *pulv. antiſtrumat.* By this courſe the Child recovered, and was returned into the Country. Since that he hath frequently relapſed, and new *Strumæ* have aroſe: but by proſecuting the former method he hath recovered as often, and the *Strumæ* afterwards reſolved, we ſcarce applying any thing to them.

6. Obſervat of *Ophthalmia.* A young Gentleman of about 16 years of age was, after the Small-pox, afflicted with ſore Eyes, with a *Puſtula* in one of them; which not yielding to the common method of Purging, *&c.* I was conſulted, and preſcribed a *Fotus* and *Collyrium*, as in the ſtate of the Fluxion; and by giving him 3 Doſes of *Merc. dulcis* of 15 grains *per doſin*, in 10 days I cured him of his Diſtemper ſo perfectly, that it returned no more.

7. Obſervat. of *Ophthalmia.* A Child of about 8 years of age had been diſeaſed two months with ſharp Defluxions upon both her Eyes, with *Puſtulæ* and Excoriation of the Lids; ſhe had alſo an *Ozæna* and thick upper Lip chapt. I purged her with *ſyr. diaſereos* in a draught of Whey in the morning, and ſome hours after ſent her ſome aſtringent Emplaſters to apply to her Temples and Forehead, preſcribing the bathing her Eyes with breaſt-milk mixed with *aqua plantag.* That night ſhe took an anodyne Syrup in a draught of Mace-ale, and ſlept with Sponges upon her Eyes dipt in the foreſaid Liquor. The next morning I let her bloud in the Arm 6 ounces, and ſyring'd her Noſtrils with *decoct. hordei & radic. althææ*, adviſing her to forbear picking her Noſe. Her Lip was anointed with *unguent. tutiæ ad oculos*, with an addition of *Merc. præcipitat.* finely poudered. The next morning I gave her 12. gr. of *Merc. diaphoret.* and from that time purged her once in 5 days with *Calomel. in conſ. roſar. damaſc.* and cauſed her to be bathed the intermitting days. After I had cleanſed her Noſe of its cruſty filth, I ſyringed it with this following Decoction: ℞ *fol. plantag. ſummitat. rubi, equiſeti, an.* Mß. *myrobolan. citr.* ʒij. *flor. roſ. rub.* Pj. *pom. granat. num.* j. *contund. & coq. in aq. plantag. & roſ. rub. an.* ℔j. *Colaturæ adde ſyr. diamoron, de roſ. ſicc. an.* ʒjß. *mellis Ægyptiaci* ʒj. *Miſc. pro uſu.* Her Eyes recover'd after the firſt bathing ſo well, that ſhe was able to look upon the light, and in leſs than 14 days was perfectly recovered. But about a year and a half after ſhe grew indiſpoſed, and was ſeized with Convulſions. I purged her with *infuſ. ſenæ, rhab.* &c. and afterwards preſcribed her three or four Doſes of *Merc. dulcis*, and thereby freed her of thoſe Convulſions.

8. Obſervat. of *Ophthalmia.* A Child aged about 6 years, of a weak tender Conſtitution, having been long ſubject to Defluxions upon his Eyes, Catarrhs, *&c.* was after ſeveral unſucceſsful Attempts recommended to my care. I began with the making him a Fontanel in his Neck by Cauſtick. (It had been made ſixteen days before he knew of it, and then it was deſcried by the clinging of his Hair to the Plaiſter.

Plaister. From that time he grew froward with it, and in compliance with him it was healed up again 2 or 3 months after.) Having fixt the Fontanel, I began to purge him with an Infusion of Rhubarb in a small Ale, and gave him 6 grains of *Merc. diaphoret.* in a spoonful of White-bread and Milk, repeating this Powder and the Infusion of Rhubarb once in 4 or 5 days. So often as I designed larger Evacuation, I mixed a purging Syrup with the Rhubarb-drink: and the following night prescribed him a spoonful of the anodyne Syrup in Mace-ale, or what else he best relisht. A Pearl-julep was made him of a distill'd Milk, *cum aq. cinnam. hordeat. & sacchar. alb.* also a medicated Ale was prescribed him of *sarsaparill. lign. lentisc. santal. alb. passul. maj. enucleat. flor. salviæ, beton. euphrasiæ, milleped. cort. citr. & nuc. moschat.* He was extream nice in taking any thing of Physick, so was for the most part cheated into it. He was also more shy in admitting of Topicks. Sometimes in extremity of pain in his Eyes Stupes were applied to them wrung out of a *decoct. flor. sambuci, cham. ros. rub.* &c. *Collyria* were more rarely applied: those that were used were *aq. pomor. dulc.* and sometimes other distill'd Waters wherein had been infused *troch. alb. Rhas.* or *sarcocoll. lap. tutiæ, saccharum.* The Water was filter'd clear. The Medicaments we laid the stress mainly on were, *infus. rhab.* and *pulv. Merc. diaphoret.* By which and the anodyne Syrup he was certainly relieved in his greatest extremity. He was frequently well three or four months together, and at length hath in a great measure worn off the many Disturbances; yet, being of a tender Constitution, may be incident to Defluxion upon his Eyes: but he hath been hitherto certainly relieved, as I said, by the foresaid Prescriptions.

9. Observat. of *Ophthalmia.*

A young Woman about 23 years of age had many *Strumæ* on both sides of her Neck, down the length of the *Musculi mastoïdes*, some large, flat and round, others oval, of a different size: she had much pain in her Head, and was subject to a Catarrh. I purged her with *infus. senæ, rhab. cum. syr ros. cum agarico*, &c. and prescribed her a *decoct. sarsæ* with Antistrumaticks, also *Bezoard. mineral.* and purged her afterwards once in 5 days with *Calomel.* and *diagrid. cum syr. de pomis magistral.* I fomented the Glands with *decoct. rad. gladioli, cucumeris agrest. bryoniæ*, &c. and embrocated them with *ol. ex ped. bovin.* some time, and afterwards applied a *Malagma* of *Corn. Cels.* by which they dissolved very much, and she recovered good health. But about 6 months after she came to me afflicted with a severe Defluxion in both her Eyes. I let her bloud in the Arm 10 ounces, and repeated the former Course of Physick; then prescribed a lenient *Fotus*, and a *Collyrium ex mucilag. sem. psyllii*, &c. and let her bloud in the other Arm 7 or 8 ounces, applying *empl. è pice Burgund.* to her Neck, and Intercipients to her Temples: by which she recovered of the Defluxion in her Eyes, and by the use of a *Collyrium ex infus. croc. metall.* her Sight grew strong.

10. Observat. of *Ophthalmia.*

A young Gentlewoman came to *London* labouring under great Inflammation with a *Pustula* in her left Eye. She had also a *Struma* in her left Foot about the Instep, lying very hard and big amongst the Tendons. Dr. *Pruj.* and Dr. *Bate* were her Physicians. She began her Course of Physick with this Prescription: ℞ *fol. senæ* ʒvj. *rhabarb. turbeth, an.* ʒjß. *hermodact.* ʒj. *salis tartari* ℈j. *flor. sambuci* Pij. *fiat Infus. in aq. scrophul. q. s. ad* ʒvj. *colat. adde syr. è pom. purg. mannæ Calabr. an.* ʒjß. *sumat ad quantit. cochl.* vij. *sing. matutin. cum debito regimine, augendo vel minuendo dosin pro ratione operationis.* ℞ *aq. scrophul.* ʒij. *syr de meconio* ʒß. *sumat hora somni singul. noct. post purgationes.* This following Decoction was also prescribed: ℞ *santal. alb.* ʒjß. *citr. & rub. an.* ʒiij. *ras. ebor.* ʒj. *regul. antimonii* ʒij. *sarsap.* ʒv. *infund. in aq. font.* ℔vj. *deinde adde rad. ruscí* ʒiij. *fol. millefol. agrimon. ling. cervinæ, an.*

an. Miij. *ciner. ſpong. combuſt.* ʒvj. *uvar. paſſul. enucleat.* ʒvj. *liquiritiæ* ʒjß. *aq. recent.* ℔iij. *coq. ad conſumption. tertiæ partis, & fiat Colatura; adde mellis q. ſ. & clarificetur; bibat bis in die ad* ʒiv. *& etiam pro potu ordinario cum cereviſ. ten. 2 part. in paſtu.* ℞ *pulv. milleped.* ʒjß. *ceruſſ. antimonii,* ʒvj. *Merc. dulc.* ℈ij. *Merc. vitæ* gr. ij. *pulv. cort. citr. condit.* ʒjß. *conſ. euphraſiæ, beton. an.* ʒij. *ſyr. è cort. citr. q. ſ. fiat Electuar.* ℞ *reſinæ jalapii* ʒß. *amygd.* j. *Merc. dulc.* ℈ij. *Merc. vitæ* gr. ij. *ſyr. è cort. citr. q. ſ. fiant Pilulæ num.* xij. *deaurat. ſumat num.* iij. *ſummo mane ſuperdormiendo.* This was repeated every ſixth day. While ſhe paſſed through this Courſe of Phyſick, Fontanels were made under her Ears, and *Collyria* were applied *ex mucilag. ſem. fænugræci,* &c. *in aq. & lacte*; alſo the Fomentation preſcribed in the method of Cure, and *empl. ad herniam* upon the Temples and Forehead. The *Struma* upon the Foot I deſigned to have taken out by Inciſion: but I complied with their deſires, and applied a Cauſtick the whole length of it, and divided the Eſcar; then, with a Cauſtick-ſtone rubb'd into the body of the *Struma*, and dreſſed it up with Lenients and *emplaſtrum è bolo*, with Bandage over it. After the Eſcar ſeparated, I rubb'd deeper into the *Struma*, till I came near the *baſis* of it: then, in conſideration that it lay upon the *Perioſteum*, I dreſſed it with *Merc. præcipitat.* upon Doſſils of Lint, till I had digeſted it all out: after which I left off the uſe of the Doſſils, and ſuffered the Ulcer to incarn. By the application of a Pledgit ſpred with *unguent. baſilic. mag.* it contracted cloſe in few days, and cicatrized well. During the time I was curing her Foot, the Defluxions on her Eye remitted, and the Ulcer cured by *aq. lap. calam.* and ſhe returned to her Friends. But I have of late heard that both her Eyes have been ſince frequently ſore.

11. Obſervat. of *Ophthalmia.*

A Child of about 4 years of age, having been long diſeaſed with the *Kings-Evil* from the one Ear to the other, with ſore Eyes and a ſwelled upper Lip, was commended into my hands. The *Strumæ* were many of them ulcerated, and the Parts about them fretted and inflamed by the Matter which was pent in by gummy hot Plaiſters which had been applied to them. His Head was alſo ulcerated under an Emplaſter that had lain long upon it, and his Eyes almoſt blinded by the defluxion of a hot Rheum. By means of all which the Child was much emaciated. I dreſſed the ulcerated *Strumæ* with Pledgits ſpred with *unguent. diapompholyg.* applying *cerat. Galeni* over them, and clipt the Plaiſter off his head; and after I had cleanſed it of the cruſted *Mucus* with which it was cover'd, I bathed it with Wine wherein were boiled *flor. roſ. rub. ſummitat. abſinth. balauſt. nuc. cupreſſ. & bacc. myrtill.* then bound a Compreſs dipt in the ſame upon it: by which in a day or two it dried up. To his Eyes I applied a Fomentation, and an anodyne *Collyrium ex lacte mulier. & aq. roſ.* was dropt into them. Emplaſters *ad herniam* were applied to his Temples: I embrocated his Lips with *unguent. refriger. Galeni.* I alſo preſcribed him a diſtill'd Milk, with Antiſtrumaticks, and purged him with Rhubarb-drink; alſo a few grains of *Merc. dulcis* once in three days. At other times he drank a diſtill'd Milk, Water with new Milk, and ſome nights an Emulſion *ex ſem. 4 frig.* By this method his Eyes recovered, the Ulcerations healed, and at length the Glands reſolved, by the uſe of the *Malagma ad ſtrumas*, or ſuppurated, and waſted themſelves that way, and he recovered fleſh. But this Child was of an ill Habit of body, and frequently relapſed or fell into other Diſeaſes: the Cure of ſome of theſe indiſpoſed Bodies being the work of Time.

12. Obſervat. of *Ophthalmia.*

A Child of about 11 years of age had been long diſeaſed with Inflammations of her Eyes, with other diſturbances from acid Humours. After various endeavours to cure her, ſhe was at laſt with much deſpondency recommended into my hands. I applied Emplaſters *ad herniam* to her Temples, and preſcribed her a Fomentation to breath forth the impacted Humours, and a Solu-

tion

tion of *lap. calaminaris in aq. fœniculi* to wash her Eyes. The next day I purged her with *infus. senæ rhab.* &c. and sent her half a dozen papers of a few grains of *Calomel. cum saccharo*, with directions to take one every 3. 4. or 5. day. From her very first Dose the Fluxion ceased, she recover'd, and continued so some months, and is relieved thereby constantly. But lately she was seized with a pain in her right Ear, and many small *Strumæ* arose on both sides of her Neck, which I removed by Purging, and by embrocating it with *unguent. ad strumas*.

LIPPITUDO.

THese Inflammations of the Eyes are generally attended with *Lippitudo*, and are called so by the *Latins*: but that which I here mean by it is, a Blearedness of the edges of the Eye-lids; of which there are two sorts, *Lippitudo humida*, and *sicca*. They are both the effects of great Defluxions excoriating the Lids, and relaxing the tone of them. The *Humida* is more remarkable upon Accidents of burning by Fire, Gunpowder, or the like: but that which I shall here speak of is, a *Lippitudo* with an *Hypersarcosis* which ariseth upon the excoriated Lid, and turneth it outward, being always accompanied with Fluxion upon the Eye. The *Lippitudo Sicca* is an Excoriation of the Lid, but ariseth from a salt Phlegm mixed with a bilious Humour, and lieth upon the *Cilia* amongst the Hair with a branny white Scale, not much unlike an *Elephantiasis*, and is attended with an itching. I shall give you an Instance of each.

Humida.

Sicca.

1. Observat. of *Lippitudo humida.*

A Man of about 56 years of age, of a full Body, had been subject to a *Lippitudo* of both Eyes some months. I fomented them with *decoct. euphrasiæ, salviæ, beton. flor. ros. rub.* &c. and after I had cleansed them of the *mucus*, I touched them daily with *tinctur. vitrioli dulcificati* lightly, and prescribed him some of the *aq. viridis* set down in the Chapter of *Ægilops* to drop into his Eyes at other times: by which method he was cured.

2. Observat. of *Lippitudo humida* with *Hypersarcosis.*

A Man aged 28 years, of a tolerable good Habit of body, came to *London* with a *Lippitudo* on the lower Lid of his left Eye, overgrown with an *Hypersarcosis* arising from within, overspreading the Tunicle, and heaving it outwards. Dr. *Walter Needham* was his Physician, and prepared his body by Purging, *&c.* In order to my work, I placed him in a Chair in a clear light, and turned the diseased Lid more outward, the while bringing the upper Lid close over the Eye, and holding it so whilst I rubb'd the *Hypersarcosis* with a Caustick-stone, wiping the Salts away as they dissolved with armed Probes. After I had thus extirpated the overgrown Flesh, I clipt off the loose Sloughs, and with a Sponge in a Bason of water I washed the lixivial Salts out of the Escar, dropping into his Eye *mucilag. ex sem. althæa, psyllii & cydonior.* extracted *in aq. plantag.* then laying him upon his Back, I covered over the external parts with Whites of eggs beaten with a piece of Alume to a Froth, and thereby restrained the Fluxion. After the Escar separated, I rubb'd the remaining Superexcrescence with a Vitriol-stone, washing the Salts out afterwards with fair Water. During this work he was let bloud, and frequently washt his Eye with a Solution of *troch. alb. Rhasis* and *aq. plantag. & solani.* Thus in the space of 3 months it was extirpated and cured, the Eye-lid returning naturally as the other.

3. Observat. of *Lippitudo sicca.*

A Man of about 26 years of age, having been afflicted from his infancy with sore Eyes, consulted Sir *Fra. Prujean*, who sent for me. The Patient had a certain Blearedness of both the left Eye-lids from the external *Canthus* downwards, but more especially on the lower Lid; which Blearedness was covered with small white branny Scales investing the Hair. His Physician

purged him with an *infuſ. ſenæ, rhab.* &c. and preſcribed a Fontanel behind that Ear, alſo Venæſection in that Arm, which was accordingly done. I fomented the diſeaſed Parts with a Decoction of *ſummit. malvar. violar. flor. ſambuci, meliloti, ſem. lini & fænugræci,* and anointed them *cum ol. vitell. ovor.* at leaſt twice aday. By this the dry Scales were ſuppled, and after pickt off from the Hair and edges of the Eye lids. Then I touched the bleared edges with *aq. viridis,* and anointed them with *unguent. tutiæ,* as it is deſcribed in the *Pharmacopœia Londinenſis*; by which and internal Preſcriptions he was cured.

Chap. VI.

Of Ægilops.

Names. ÆGilops is a Tubercle in the inner *Canthus* of the Eye, either Scrophulous, Atheromatous, or of the nature of a *Meliceris*, or ſometime with Inflammation. It hath obtained two names amongſt the *Grecians:* viz. *Anchylops*, when it is not ulcerated; *Ægilops*, when it is. In which latter caſe it is very apt to grow ſinuous; and being ſo, whether it prove callous or not, is however called *Fiſtula lacrymalis*, ſometimes paſſing through the Bone of the Noſe it ſelf.

Cauſes. The *Cauſes* of *Ægilops* are the ſame that produce the like Tumours in other places. But in ſome caſes it is made by Fluxion, and appeareth firſt as a ſmall *Phlegmon.* This Diſeaſe frequently occurreth in *Lues Venerea:* but theſe I here treat of are Strumous.

Signs. If it be *Struma Atheroma*, &c. it is then made by Congeſtion, and the Tubercle is round, without diſcolouring the Skin. If it be made by Fluxion, pain and redneſs do appear, with Inflammation over all that Eye. Sometimes it beginneth only with a weeping of that corner, and is not diſcovered till it affects the Eye with redneſs; and then, by preſſure with your finger upon that *Canthus*, a mixt Matter may be diſcharged, part whereof is not unlike the White of an egg. Sometimes this Matter eateth quite through the Bone, and diſchargeth it ſelf downwards through the Noſe with a fœtid ſmell.

Prognoſtick. *Fiſtulæ lacrymales* are difficult of Cure from what Cauſe ſoever they ariſe. The Part being looſe and ſpongy, the Eye very ſenſible, and the laxity of the Part, maketh Humours apt to ſoak into it, and to penetrate even to the Bone it ſelf. The ſenſibleneſs of the Eye renders it ſubject to pain and fluxion, as alſo unfit to be dreſſed with ſharp Medicaments, ſuch as theſe Diſeaſes require.

That *Fiſtula* which is recent, with ſufficient opening is the eaſieſt of Cure. Thoſe of a long continuance are for the moſt part accompanied with Ulcerations of that Gland, & *Caries* in the Bone, which makes them ſubject to a weeping after they are cured. If the Ulcer be accompanied with Eroſion, it will be apt to terminate cancerous; in which caſe the Cure is deplorable.

Cure. The indication of *Cure* is taken from the condition of the *Ægilops*, whether it be in its beginning with Inflammation, or by Congeſtion, paſſing its Matter forth under the *Cilium* into the Eye; in which caſe it is fiſtulated. *Anchylops* hath alſo its peculiar way of treating, as other Tumours of the Glands.

In

In the beginning of *Ægilops* Bleeding by Lancet is neceſſary, and ſo is Purging, alſo ſuch Alteratives as have been preſcribed in the general Cure of *Strumæ*, with regulation of Diet accordingly.

Externally we apply Repellents to the diſeaſed Part, to prevent Fluxion, of *aqua portulac. lactucæ, plantag. equiſeti, ſolani, ſperm. ranar.* &c. *cum albumin. ovor. bolo Armen.* &c. To intercept the Matter we apply *gum. maſtich. takamahaca, emplaſt. ad herniam*, to the Temples and Parts about. If the Tumour increaſe with tenſion and pain, it will then be reaſonable to endeavour Diſcuſſion by Medicaments already deſcribed in *Ophthalmia*, of *ſummitat. abſinth. flor. ſambuci, rutæ, far. lentium, orobi,* &c. decocted in Wine or common Lixive. In the *Anchylops* rancid Nuts beaten and applied are much commended: ſo likewiſe is *calx viva cum melle contrita.* If the Tumour tend to Suppuration, then haſten Concoction *cum radic. lilior. mucilag. ſem. althææ, fœnugræci, lini, far. tritic. axung. porcin.* &c. The Matter being well concocted, lay it open large, that you may have way to apply your Medicaments. Authors have propoſed various Eſcaroticks to open theſe; but I uſe the opening them by Knife or Cauſtick. The only Caution is, that you open it ſuch a diſtance off from the edge of the Eye-lid, that you divide not that: for in ſo doing you will leave a remedileſs Blemiſh, & the Eye will be apt to water ever after, and be ſubject to Fluxion. Therefore if you open it by Cauſtick, it will require your greater care. I for the moſt part open them by Inciſion. Then digeſt them with a Doſſil dipt *in oleo roſ. & vitell. ovi*; over which apply *cerat. Galeni*, or ſuch like Anodynes, with a Compreſs dipt in ſome of the aboveſaid diſtill'd Waters, to contemperate the heat in the Part; and afterwards deterge with *mel roſ. ſyr. de roſ. ſiccis*; or, ℞ *mell. comm.* ℥ij. *viridis æris* ℥j. *ſpir. vini* ℥iv. *coquantur ad tertiæ partis conſumptionem*: and then diſpoſe them to cicatrize with this; ℞ *myrobalan. citr.* ℥j. *thuris, myrrhæ, an.* ℈ij. *floris æris* ℈j. *camphoræ* gr. ij. *infund. in aq. roſ. & vini albi an.* ℥iv. *& coquantur ad tertiæ partis conſumptionem, filtrando pro uſu.* And afterwards by *unguent. tutiæ, aq. calcis*, &c. with good Compreſſion incarn and cicatrize them.

If it be Fiſtulous, and the Orifice ſmall, dilate it with Gentian-roots, or ſuch like, and proceed with Deterſives, as hath been ſeen. If thereby the *Callus* do not waſte, you may inject this following Decoction; ℞ *fol. rutæ, chelidon. min. agrimon. an.* M ß. *infund. per noctem ſpir. vini* lb ß. *coletur pro uſu*: and apply this following upon Doſſils; ℞ *zinziberis* ℥ij. *viridis æris* ℈ij. *mell. roſ.* ℥iij. *aceti opt.* ℥iv. *coq. ad craſſitiem.* If there be *Caries*, apply this: ℞ *vitrioli uſti, cantharid. abſciſſ. alis & capitibus, calcis vivæ, ſalis armoniac. alumin. roch. an. p. æq. cum urina pueri inſpiſſat.* Theſe are the Medicaments propoſed by Authors of good authority.

In the applying them the Parts about muſt be well defended, and the Fluxion reſtrained by the application of Refrigerants; and after all it is a moſt painful tedious way. Therefore I propoſe the uſe of the actual Cautery; which being applied through a *Cannula* will with one touch waſte the Calloſity and *Caries*: after which dreſs it up with a Doſſil dipt in a mixture of *ol. roſ. cum albumine ovi*, and a Compreſs in the ſame over all: then digeſt and deterge with the milder Preſcriptions, keeping the Orifice dilated with a Doſſil dipt in *tinctura myrrhæ*, &c. till the Bone exfoliate: then with *unguent. tutiæ*, &c. with Compreſſion cicatrize.

The *Anchylops* requires Extirpation, and is to be cured accordingly to what is propoſed in this Treatiſe.

1. Obſervat. of *Ægilops* with Inflammation.

A Young Gentlewoman, abounding with acid *Serum*, was ſeized with an Inflammation and Tumour in the great *Canthus* or Angle of her Eye. She

She had been dreſſed by ſome neighbouring Friend till the Inflammation cloſed up her Eye-lid, and alarm'd her by the great diſcharge of a mixt ſerous Matter. I, obſerving the Tumour perfectly ſuppurated, and the Matter ſhining under the *Cuticula* ready to burſt through, open'd it by the point of a Lancet, without drawing one drop of bloud. The Matter diſcharged, I dreſſed it with a Doſſil dipt *in vitello ovi*, with a Plaiſter of *cerat. Galeni*, and Cloaths dipt in Red wine over all, with convenient Bandage to retain them on. The next day I took off Dreſſings, and fomented it with *decoct. fol. malv. viol. betonic. ſalviæ, & flor. roſ. rub* in Wine and Water, repeating the Dreſſings as before, and let her bloud in the Arm. At the next day's dreſſing I found the Swelling of her Eye-lid relaxed, and the external Inflammation mitigated, but the Eye it ſelf inflamed. I fomented and dreſſed the Abſceſs with a Doſſil dipt in *ſyr. de roſ. ſiccis*, applying a Pledgit of *unguent. tutiæ* over it, with a ſoft Compreſs thereupon; leaving the Eye at liberty to be refreſhed by the Air, and to be dreſſed with Breaſt-milk, *&c.* as they pleaſed. To the Forehead Frontlets were applied to reſtrain and intercept the Influx. Sir *Fra. Pruj.* was her Phyſician, and preſcribed her lenient Purgatives, traumatick Decoctions, *&c.* I alſo kept the Orifice open ſufficiently for diſcharge of the Matter and conveniency of dreſſing, applying externally refrigerant and exſiccant Medicaments, and adding a few drops of *tinctura viridis* to the Syrup in which I dipt my Doſſils. Yet notwithſtanding our endeavours, the Matter having made its paſſage into the Eye during the time of Suppuration, it continued its courſe, and flowed both ways in too great a quantity for ſome time. Upon which conſideration I dreſſed the Ulcer with a Doſſil dipt in Præcipitate, and applied over it a Pledgit *cum unguent. tutiæ Vigonis*, with Compreſs and Bandage. After I had thus digeſted it, I dreſſed it with a Doſſil dipt *in aq. viridis*, (as it is preſcribed in the method of Cure,) leſſening the ſaid Doſſil daily, and at laſt cicatrized it firm.

2. Obſervat. of *Ægilops* with Inflammation.

A ſcrophulous Child of about 4 years of age having an inflamed Tubercle in the great Angle of her left Eye, the Matter being ſuppurated, I opened it by Inciſion, and diſcharged a well concocted Matter; then fomented the Tumour with Wine, and fill'd the Abſceſs with Doſſils dipt *in ſyr. de roſ. ſicc.* with a Pledgit of *unguent. baſilic.* over it, alſo a Plaiſter of *cerat. Galeni* over that, and bound it up, proceeding daily in the fomenting and dreſſing it, till the Inflammation and Swelling remitted. After which I added a few drops of *tinctura viridis* to the Syrup, and kept the Ulcer dilated with a Doſſil dipt and preſſed out of that Mixture, applying a Pledgit of *unguent. ex lap. calamin.* with Compreſs and Bandage over it. And the better to diſpoſe the Ulcer to cure, I purged her once in 4 or 5 days with an Infuſion of Rhubarb in Small beer, and once a week with a few grains of *Merc. dulc. cum ſaccharo.* The Matter diminiſhing, I leſſened the Doſſil, and cicatrized it with the aforeſaid Tincture, making good Bandage upon the *Sinus* till it was cloſe united, and ceaſed weeping.

3. Obſervat. of *Fiſtula lacrymalis.*

A Gentlewoman of about 25 years of age having been between 3 and 4 years ſubject to the *King's-Evil* and a *Fiſtula* weeping into the Eye from the great *Canthus*, I preſcribed her *aq. lap. medicament. Crollii* to drop into that corner of her Eye, and directed her the making a conſtant Compreſſion upon the external Parts by an Inſtrument made to that purpoſe: by which ſhe was in few months cured. And by the ſame way, with the help of Internals, I have cured many of thoſe, where the Bone hath not been carious, or the Habit of body extreamly indiſpoſed.

4. Obſervat of *Fiſtula lacrymalis.*

A Boy about 7 or 8 years of age, of a very ill Habit of body, had alſo been two years diſeaſed with a *Fiſtula lacrymalis*, and conſulted ſome of our Profeſſion.

fession. But they deterred him and his Parents with the mention of the actual Cautery: whereupon he was put into my hands to cure. I made Incision into the Cavity, and put into it a proportionable piece of Gentian root, with a Pledgit of *Basilicon* over it, and a Compress pressed out of some of the aforementioned distill'd Waters. The second day after I repeated the same manner of dressing, and continued to keep it dilated with some of the same Roots. During which I endeavoured to restrain the influx of Humours, and dry up those affecting the Part, according as hath been set down in the method of Cure, and by Antistrumaticks disposed the Humours to a healing condition. The Fluxion being thus removed, and the Matter little, I left off the use of the Gentian-root, and dressed the Ulcer with Dossils dipt and pressed out of *aq. med. Crollii*, and after some days lessened them daily. Afterwards I left off the Dossils, and cicatrized the Ulcer with Pledgits of *unguent. tutiæ*, &c. Many such I have so cured: but some years after I have seen divers of them thus cured weeping again.

5. Observat. of *Fistula lacrymalis.*

A Girl of about 12 years of age having a *Fistula lacrymalis* of some years continuance, discharging a mixt crude Matter daily into the Eye, I laid it open by Incision, dilated and digested it, and endeavoured by Internals to dispose the Body to a better habit, and prosecuted the Cure by Exsiccants. But it not yielding thereto, I separated the *Periosteum* from the Bone, made Exfoliation of it, and incarned upon that, supposing I had by Compression cicatrized the Ulcer. But it brake out again upon the leaving off the Bandage; upon which I dilated it again, and by actual Cautery consumed the *Callus* and Bone: after which it cured more easily.

6. Observat. of *Fistula lacrymalis.*

A Gentlewoman aged about 38 years had a *Fistula lacrymalis* discharging its Matter into the Eye in great quantity. I applied a small Caustick upon that part of it where I felt the Cavity; and having eaten into it, I passed an actual Cautery through it to the Bone, whereby I cauterized it, then dressed the burnt Escar with Lenients to hasten its Separation, and afterwards deterged and cicatrized the Ulcer as hath been afore shewed.

7. Observat. of *Fistula lacrymalis.*

A Young fellow, aged 28 years, was commended to me out of the City, having a *Fistula lacrymalis* discharging a great quantity of purulent Matter into the Eye. He had suffered many years by it, and passed through many hands unsuccessfully. I laid it open by Incision, and dilated it, endeavouring some while to digest it, and to that purpose prescribed various Internals: but the Matter rather increasing, I passed a *Cannula* into the Cavity, and with an actual Cautery pierced through that side of the Bone of the Nose, thereby diverting the Matter, and afterwards cured the Ulcer with more ease; the Bone also exfoliated, and fill'd up with *Callus*.

I could give you more Instances of the Cures of *Fistulæ lacrymales*: but the manner thereof differeth not from what hath before been said; and by the actual Cautery I never failed in the Cure of the worst of them.

8. Observat. of *Anchylops.*

A Woman aged about 30 years having a Tubercle in the great *Canthus* of the right Eye of the bigness of a Pistol-bullet, I made Incision of the Skin, and separating it from the preternatural body, I raised it up. In taking it out, the *Cystis* broke, and shewed it self by its Matter to be a *Meliceris*. I cleansed the Wound, and cut it out, bringing away the *Cystis*; then closed up the Lips of the Wound, and applied a Pledgit of *unguent. basilic.* with Bandage over it, and cured it by Agglutination. These Tubercles do frequently yield to Discutients: and some times, after they have resisted all our Endeavours, they have of themselves resolved. Particularly I saw it in an Ensign in the *Low-countries*, who was troubled with a Tubercle of the bigness of a Pigeon's egg, which had been of many years continuance. He intended to have

have been my Patient there, and ſome years after deſigned to have put himſelf into my hands here : but a while after it diſſipated ſo as there remained no mark of it.

9. Obſervat. of *Anchylops.* A young Gentlewoman came to *London* recommended to me having a Tubercle in the great Angle of her right Eye, of the bigneſs of a Lupin. Many endeavours had been uſed in the Country to reſolve it. I began with Diſcutients, Bleeding, Purging, *&c.* and thought I had thereby diſſipated the Matter : but after a few days diſcontinuance of Topicks and Bandage, it appeared again : upon ſight whereof I opened it by Inciſion, and diſcharged a Matter like the White of an egg. I could not perceive any *Cyſtis*, yet judged it an *Atheroma*. Having dreſſed it with a Doſſil dipt in Præcipitate, I applied another over it ſpred with *baſilicon*, with a Compreſs over that dipt *in aq. roſ. rub. & ſolani*. The third day I repeated the ſame kind of Dreſſings, and continued them till I had well deterged and digeſted the Ulcer ; then dreſſed it with a Doſſil dipt in a Sarcotick tincture of Myrrh, Aloes, *&c.* and afterwards proceeded with Epuloticks, and thought it had been cicatrized. But preſſing with my finger one day upon the upper part of it, and a diſproportionate quantity of Matter flowing forth, I paſſed in my Probe, and feeling the Bone carious, I dilated it with Gentian-roots, paſſed in a *Cannula* to the *Caries*, and with an actual Cautery dried the Bone. I applied to it *ol. roſ. cum albumine ovi* ; and afterwards dreſſed the Ulcer daily for the firſt 4 or 5 days with Doſſils dipt in *decoct. hordei, rad. conſolid. maj.* and when the anguiſh was mitigated, with *tinctura myrrhæ*, keeping the Orifice open till the Exfoliation was perfected ; then cicatrized it, as hath been ſhewed in the former Obſervations.

10. Obſervat. of *Anchylops* with a *Polypus.* A poor Woman came to me out of the Country with a large Tubercle on the right *Canthus* : ſhe had alſo a *Polypus* in that Noſtril. I began with the Tubercle by the application of a Cauſtick. After the ſeparation of which a *Fungus* thruſt forth, and grew very vexatious in the eradicating. After I had ſpent ſome time unſucceſsfully in the work, I began with the *Polypus*, attempting to thruſt it out with my finger : but it not yielding that way, I took hold of it with a *Forceps* Ducks bills, and having pulled it outward, I paſſed a Needle with a twiſted brown Thread through it, according to *Fab. ab Aquapend.* and pulling by that and my *Forceps* together, it came away about the length of two inches, but was attended with a flux of bloud from the Noſe, Mouth and Eye ; which was ſtopt by the ſyringing up of Oxycrate. At the next dreſſing of the Ulcer in the *Canthus* I miſſed the *Fungus*, and found a great hole in the Bone of the Noſe. Upon ſight of which I concluded the *Fungus* which had been there was the root of that *Polypus*. The Bone was much corrupted : but I haſtened the external Cure of the Ulcer, and return'd her into the Country, leaving the Exfoliation of the Bone to Nature.

Having treated accidentally of a *Polypus*, I thought my ſelf obliged to give you one Obſervation of an *Ozæna*, it being an Ulcer within the Noſe ; and though it be not the *King's-Evil*, yet it too frequently accompanieth it, and is occaſioned by thoſe ſharp Humours paſſing that way, and yieldeth not otherwiſe to Cure than by the general method preſcribed in this Treatiſe.

11. Obſervat. of *Ozæna.* A young Gentlewoman aged about 15 years, of a lean dry Conſtitution, was diſeaſed with an *Ozæna* in both her Noſtrils, a thick upper Lip, and ſome Glands on both ſides of her Neck. She was put into the hands of Dr. *Barwick* and my ſelf. He preſcribed her as followeth. ℞ *ſen. oriental.* ℥ij. *Rhei opt. inciſ.* ℥ß. *pulp. tamar.* ℥ß. *ſyr. è pom. purg. & mann. opt. an.* ℥v. *infund. S. A. in vini alb.* ℨiv. *Colatura clarificetur cum ovi album. & propinetur mane ad* ℨiv.

cum

cum regimine. Singulis noviluniis & pleniluniis ſumat Calomel. gr. xij. *diacryd. ſulphurat.* gr. vj. *in formam Boli redactor. cum conſerv. viol.* ʒß. *ſyr. viol. tantillo.* ℞ *ocul. cancror. Mercur. diaphoret. corall. rub. præparat. an.* gr. iij. *Miſc. Capiat bis vel ter quotidie in cochl.* j. *lact. vacc. cum aſellis diſtillati, & ſuperbibat cochl.* v. *vel* vj. *cum ſacchar. opt. dulcorat.*

I began my work with the moiſtning of the cruſted Matter ſticking in her Noſtrils, by frequent injecting of this: ℞ *hord. mundati* ʒj. *ſem. althææ* ʒiij. *ſem. cucurbit. melon. excortic. an.* ʒß. *infund. & coquantur in aq. font. ad* ℔jß. *coletur pro uſu.* After her Noſtrils were herewith ſyringed, ſhe ſnuft up a little *ol. amygd. dulc.* Her upper Lip and Neck were embrocated with *unguent. ad ſtrumas* morning and evening. After her Noſtrils were freed of that cruſty ſtuffe, this following *Errhinum* was ſnuft up into her Noſtrils twice aday at leaſt: ℞ *fol. plantag. ſummitat. equiſeti, an.* Mj. *rad. biſtortæ, tormentillæ, an.* ʒj. *flor. roſ. rubr.* Mß. *balauſt.* ʒiij. *coquantur in aq. chalybeat. ad* ℔ij. *Colaturæ adde ſyrup. noſtri mag.* as it is preſcribed in the Cure of *Ozæna* in the Treatiſe of *Lues Venerea.* The edges of her Noſtrils were anointed with *unguent. refriger. Galeni cum ceruſſ. antimonii.* By the frequent repeating of the aforementioned internal Preſcriptions and external Applications, ſhe was happily cured in the ſpace of a month, and ſo continues to this day. And by this method all theſe kind of *Ozænæ* may be cured.

The Eye-lids are frequently diſeaſed with glandulous Tubercles; which, how different Matter ſoever they contain, are generally called *Hordeoli*, and do take their original from the ſame Matter that thoſe Tumours do which are deſcribed in this Treatiſe of *Strumæ*, and are cured after the ſame manner. Sometimes they reſolve or ſuppurate: but for the moſt part they are taken out by Knife or Cauſtick. Theſe only that lie between the inner Tunicle and Cartilage are capable of being extirpated by Inciſion: the other may be eradicated by Cauſtick; the manner I ſhall ſhew you in a few Inſtances.

A Gentleman of about 26 years of age had an *Hordeolum* on his right Eye-lid, lying between the external Tunicle and Cartilage. I applied *emplaſtrum ad ſtrumas* on it, with hopes of reſolving it: but after ſome time it ſuppurated. I thereupon opened it with a Lancet, and let out the Matter; then digeſted it with *unguent. baſilic.* But feeling afterward ſome part of the Gland in it, I ſprinkled into it ſome *Merc. præcipit.* and applied a Pledgit of *baſilicon* over it, with *emplaſtr. diachyl. ſimpl.* whereby I eradicated it, and ſoon after healed it ſmooth with *unguent. tutiæ.* Where the Suppuration hath been more perfect, they are eaſier cured. In others, where they were hard and movable, I have opened them by Inciſion tranſverſe, or according to the length of the Eye-lid, and thruſt them out whole, then healed them by Agglutination. Yet in ſome of theſe the *Cyſtis* hath burſt in taking out, and a thick curdled Matter hath thruſt forth: in which caſes I digeſted them out with Præcipitate, and healed them as aforeſaid. But the opening theſe with a Cauſtick-ſtone pointed is moſt grateful, to Women at leaſt: upon which conſideration I generally open them that way, and upon ſeparation of the Eſcar thruſt them out, and cure them by Digeſtion with little trouble or pain. 12. Obſervat. of *Hordeolum.*

A young Woman came out of the North-country to me with an *Hordeolum* on the inſide of the Cartilage preſſing upon the Eye with great weight, and inflaming it. I turned the Lid inſide outward, made an Inciſion into it, and thruſt it out: then cleanſing the Wound, I returned the Lid down. It cured of it ſelf in three or four days, without any manner of dreſſing. Yet ſometimes Excreſcences thruſt out there, and inflame the Eye. Some- 13. Obſervat. of *Hordeolum.*

times

times I have seen Excrescences of soft Flesh grow upon the *Tunica conjunctiva*, and cause an Inflammation of the Eye. Several such like have come to me out of the Country: some I have cut away with Scissors; others I have worn off with the Alume and Vitriol-stone.

14. Observat. of *Sarcoma* upon the *Supercilia.*

A Person of Honour, aged 29 years, was commended into my hands by Sir *Edward Alston* Physician. She was diseased with a Tumour of a dark red colour possessing the upper Lid of her left Eye between the external Tunicle and the Cartilage, spreading to the very edge of the *Cilium*. It took its original from some *Hordeolum* ill handled, and seemed to be a *Sarcoma*. I proposed the eradicating it by Escarotick: which being allowed of, I encompassed the Tumour with Ink, then began with a Caustick-stone in the upper part of it, wiping up the dissolved Salt with armed Probes, proceeding gradually in the work to the very edge of the Lid, with great care to preserve the Hair growing on it. It was a very nice work. After I had sufficiently penetrated into this Fleshy body, I washed the Salts out of the Escar, and scarifying it, dressed it with *unguent. basilic. cum oleo lilior.* and bound it up. The next day we met again; when I took off Dressings, and found the Tumour flat, the Escar lying proportionably as was designed, and the Eye undisturbed. I fomented *cum decoct. malvæ, viol.* &c. and dressed it up as before, continuing my attendance daily with her Physician: and as the Escar separated between the Scarifications, I either rubb'd the Superexcrescence of Flesh with the Vitriol-stone, or sprinkled it with Præcipitate, or used both. And after the Escar cast off, I deterged and wasted the remaining *basis*, and cicatrized it smooth, leaving the very Edge naturally shaped, without loss of one Hair: and so it continueth to this day.

15. Observat. of an Excrescence upon the lacrymal Gland.

An *Italian* Gentleman was brought to me by Sir *Theod. de Vo.* who had a large Excrescence in the great Angle of his right Eye. The Extirpation had been attempted both in *Italy*, and at *Paris*, as they told me. I passed a Ligature upon the *basis* of it, and clipt it off close: then drying up the bloud with a Sponge dipt in *aq. sperm. ranar.* I rubb'd its remaining *basis* with the Vitriol-stone, then washed his Eye again with the aforesaid *aq. sp. ranar.* The next morning I visited him, and met his Physician there; but we saw nothing of the Excrescence remaining, neither did it appear any more.

16. Observat. of *Thymus.*

A Gentlewoman near 40 years of age had a very large *Thymus* growing upon the side of her Nose, over the great *Canthus*. It was of many years growth; and she had been advised not to permit the Extirpation of it. But she at length desiring me to take it off, I passed a Needle under its *basis*, and cut it out, cicatrizing it afterwards with Epuloticks; and it grew no more.

CHAP.

Chap. VII.

Of the Tonsils.

THE *Tonsils*, or Almonds of the Ears, are also frequently swelled in the *King's-Evil*: which Tumour may be very well reckoned a Species of it.

These Swellings are raised by Congestion gradually without pain, and therefore are seldom taken notice of till by their growth they bring inconveniences with them, as Catarrh, Cough, or Difficulty of swallowing: in which latter case their Drink often runneth out at their Nose.

These differ from the common Swellings of the *Amygdalæ*, as Tumours by Congestion do from those made by Fluxion: which latter are of sudden growth, and terminate as soon; whereas the other may have been many years growing, and do increase and decrease with the Moon, as generally all Tumours by Congestion in the Glands do. Difference.

The *Causes* of the Tumefaction of these Glands are the same with those of *Strumæ*. Causes.

They are soft fleshy Tumours, of a round or oval figure, retaining the natural colour of the Skin; and are of an obtuse sense, so that you may pierce the body of them with a Knife or Probe without causing pain or drawing bloud: yet are they subject to Inflammation, and the like Accidents that other Swellings of the Glands are. Signs.

If the Tumefaction be small, the disturbance is little; many people having had them from their Infancy without great inconvenience. If the Swellings be big, there may be danger of Suffocation: but in that case they may be extirpated without running any great hazard. Prognostick.

In order to the *Cure*, Physicians do generally prescribe Venæsection, and by Clysters & lenient Purgatives make Evacuation; also by Blistering, Cupping, Fontanels, *&c.* they endeavour Derivation: which is necessary in case of Inflammation; in which astringent Lotions may be also proper. But in those made by Congestion the speediest way of Cure is by Extirpation: and that either by Abscission, at once cutting them off; or by actual or potential Cautery. Modern Writers have said little of these Extirpations. *Fabritius ab Aquapend.* in his Book *De operat. Chirurg.* renders the Abscission of them difficult enough, and not without danger; as you may see, where delivering *Celsus* and *Paulus*'s way of cutting them out, he determines at last thus, *Ex quibus licet colligere, neque facilem neque omnino tutam hanc Chirurgiam esse*, &c. The first Chirurgeon in my memory that attempted the Extirpating them was the late deceased Mr. *Ed. Mol.* an excellent Operator. He attempted it upon a Person of Honour by actual Cautery through a *Cannula* well contrived for that purpose. I afterwards saw him burn several. He passed the Cautery through the body of them, and by repeating of it twice or thrice he burnt a hole through them, and accordingly crimpled them up; as may be yet seen in that Noble Person, somewhat of the Excrescence still remaining, and not without some uneasiness at certain times: upon which Cure.

account I had the honour to ſee it ſome years ſince. The way by potential Cautery is, by working with a Cauſtick-ſtone and other Eſcaroticks fixt in ſuch an Inſtrument as may ſerve to eat into them, without offending the neighbouring ſound Parts. To which purpoſe I make my way into the body of the Gland, conſuming it within; and at laſt the Shell (or exteriour parts) falls in pieces, and is ſo eradicated. The way by Exciſion is, by making a Ligature about the *baſis* of them, and ſnipping them cloſe off with a pair of crooked Probe-ſciſſors. In this work you ought to conſider well how they are radicated. For ſometimes they are rooted like a *Criſta* deeper in the Throat: in which, if in cutting them out you only cut that part you tied, and cut the Ligature at the ſame time, it will ſlip down into the Throat, and hazard their choaking. Therefore while you hold the Ligature with one hand, you muſt paſs the Sciſſors down as cloſe by the *baſis* of it as you can, ſo as by one ſnip you may cut it clear off. But leſt you ſhould fail, it will be neceſſary to have another Ligature fitted in an Inſtrument for your purpoſe, and the Patient's Head to be held ſteady, that in caſe you fail in the firſt attempt, and it fall into the Throat, you may readily return it, and tie it at the ſame time; which is no difficult thing to do. The Exciſion made, the bleeding will be ſoon ſtopt by Gargling with Oxycrate; and you may cicatrize it in a few days by touching it with the Vitriol and Alume-ſtones. I ſhall give you ſome Inſtances of my practice therein, and ſhew you my firſt attempt in the Extirpation of them by Eſcarotick and Exciſion in this following Obſervation.

1. Obſervat. of the extirpation of both the Tonſils.

A Perſon of Honour, aged 10 years, having been ſome years diſeaſed with preternatural Swellings in her Tonſils, with great Defluxion upon her Lungs, alſo Difficulty of breathing, and at laſt of ſwallowing, her Drink frequently running out at her Noſe, was brought to *London*, and put into the hands of Sir *Fra. Prujean* and Dr. *Luke Rugely*. Mr. *Arris* was Chirurgeon to the Family. Various Remedies had been preſcribed: but they proving ineffectual to remove them, I was conſulted, and propoſed the Extirpation of them by actual Cautery. But that not being admitted, I undertook it by Eſcaroticks, and came the next day prepared, and placed her in a clear light, her Head leaning to a Bed-poſt, Mr. *Arris* ſitting behind, holding it ſteady. I began with the left Tonſil, holding her Tongue down with a *Speculum linguæ*, while I preſſed into the body of the Tumour with a long-pointed Cauſtick-ſtone fixed to a Stick. After I had held it a while, I pull'd it out, and with a Firre-ſtick dipt *in oleo vitrioli* preſſed into the ſame place, then pulled out that too, and gave her a Glaſs of water to waſh her Mouth. I repeated the uſe of the ſeveral Cauſticks; ſhe waſhing her Mouth always after the uſe of them. By this method I penetrated into both the Tonſils, and divided the left into two. In the time of working with the Cauſtick, I dried up the Salts of them with armed Probes ſo well, that her Mouth was not fretted in any part by them: and after I had finiſht the work, I waſht the Tonſils with *decoct. hordei*, and ſhe afterwards gargled with a pleaſant Julep made of diſtill'd Water, *acet. roſ.* and *ſyr. diamoron*. Having divided the one Tonſil, and diminiſhed the other, I cauſed an Inſtrument to be made to convey a Ligature about the *baſis* of them, with deſign to tie and cut them off one after another. I began with the left Tonſil, paſſing a Ligature upon the one half, and cut it off cloſe. There happening no diſturbance by bleeding, I tied the other, and cut it off: then with a Vitriol-ſtone I rubb'd the remaining *baſis*, and thereby ſmoothed and cicatrized it in 4 or 5 days. I then began with the right Tonſil. Mr. *Arris* holding her

her Head as formerly, I made a Ligature upon the *basis* of it, and holding the end of it with my right hand, I passed a pair of Probe-scissors with my other hand close by the said *basis*, and supposing I had encompassed the root, I clipt; but it not coming away, I thrust my Scissors downwards, and cut again, being confident I had clipt through the fleshy body. I pull'd the Ligature, but it not coming, I was somewhat surprized what should be the cause: therefore pulling my Scissors a little back, and turning them more off from the *basis*, I clipt again, cut off the bigger part of it, and brought it out with my Ligature: at which instant she choaked. The Ladies seeing it, shrieked, and became troublesome. I desired Mr. *Arris* to sit still while the Patient choaked: she gaping, I passed into her Throat the Instrument I had made the Ligature by, and raising up the remaining Excrescence, she recovered, and cried, Shall I live? I replied, Yes, if you sit still. I passed another Instrument fitted with a Ligature. In changing the Instruments the Excrescence slipt down, and she choaked again; but I raised it up, and relieved her: then tied the Ligature upon it, and looked into her Throat; where I saw it rooted like a Cock's Comb, and that in endeavouring to cut the Tonsil close by the root, I had cut below the part I had tied. Which if I could have foreseen, and have passed my Scissors close a little lower, one Snip had brought it clear away: but not supposing it rooted so low, and working blind-fold, I was at a loss. But being now better informed, I passed my crooked Probe-scissors down lower, cut it clean off by the roots, and brought it away with my Ligature. I cicatrized it with the Vitriol and Alume-stones in few days. Yet some while after she was cured, a part of her Drink came out at her Nose: which happened by reason of the Tonsils drawing that part of her Palate down lower than naturally it should: and I suppose that was the cause of her speaking so. But some while after she was freed of those Inconveniences.

2. Observat. of the right Tonsil extirpated.

A Gentleman aged 25 years, who had been long subject to Defluxions, *&c.* from overgrown Tonsils, and taken much Physick unsuccessfully, was recommended to me. The right Tonsil being very large, I proposed the cutting it off. The Patient's Friends consulted their Physician and Chirurgeon: they did not readily assent to it. But notwithstanding, the Patient and his Friends perceiving there was no other way of Cure, they recommended him again to my care. I made a Ligature upon it, with design to have cut it off at that instant: but observing their great apprehensions of a Flux of bloud, *&c.* I deferred it till the next morning, and then I saw it shrunk and much lessened. I took hold of the Ligature with one hand, and passing my Probe-scissors close by the root of it, at one Snip cut it off, and brought it away with the Ligature, it scarce bleeding one jot. I rubb'd the remaining *basis* with a Vitriol-stone, and caused him afterwards to gargle with *decoct. hordei cum syr. de rosis siccis*, and in 4 or 5 days cicatrized it. The other being small, I deferred the medling with it till there should appear more cause. But from that time he recovered a better health.

3. Observat. of the right Tonsil extirpated.

A Gentleman's Daughter of about twelve years of age, frequently diseased with Catarrhs, and after some time with great Difficulty in swallowing, consulted me. Looking in her Throat, and seeing her Tonsils, especially the right, very big, I advised the cutting off the bigger. To which they assenting, I made a Ligature upon it, and at the same instant cut it off; and afterwards, by rubbing it with the Vitriol-stone, cicatrized it in few days. She being relieved hereby, hath hitherto deferred the cutting off the other.

4. Observat. of both the Tonsils extirpated.

A Gentlewoman of about 26 years of age, subject to Catarrhs, by reason of the preternatural growth of the *Amygdalæ* came to *London*, and consulted her

Physician. He advised her to have them cut off, and brought me to her. I made a Ligature upon the one, and cut it off, washing her Mouth after with Oxycrate: then passed a Ligature upon the other, and cut it also off; she gargled and washt her Mouth. I afterwards rubb'd the *basis* of them with a Vitriol-stone, and took my leave for that time. The next day I came again, with intention to dress the remaining Wounds: but she was removed from her Lodgings, or her Physician had undertaken the cicatrizing them; for from that time I neither saw nor heard from her.

5. Observat. of the left Tonsil extirpated.

A Gentlewoman aged 56 years had been a long while subject to Defluxions upon her Throat and Breast. After various Endeavours to divert this Humour I was consulted. Looking into her Mouth, I saw the left Tonsil very large, and supposed that the cause of her Catarrh. I proposed the Excision of it: which being approved of, I came the next day, and made a Ligature about its root, and with my Probe-scissors cut through it, as was accustomed. But it not coming away as it should, and the bloud flowing down her Throat whilst she leaned her Head backwards, feeling her self choaking, she flung backwards, thrust away the man behind her, and in strugling slipt off the Chair. At which instant I lost my hold of the Ligature, and she lay choaking. I saw the cause, and getting hold again of the Ligature, relieved her, then raised her up, and, having a little refreshed her with Drink, placed her again in a clear light, and passing my Scissors down lower, with one Snip cut it off, and brought it away with the Ligature. She gargled with Oxycrate, and was in few days cured by touching it with the Vitriol and Alume-stones. Since that time she hath not been troubled with Defluxions, but enjoys a good health to this day.

6. Observat. of both Tonsils extirpated.

A young Gentlewoman of about 15 years of age was brought to me out of a neighbouring Village with both her Tonsils preternaturally swelled. She had been long subject to a Catarrh, and had been frequently in danger of strangling in the night with the Fluxion. I proposed the Excision of them, as the speediest way and least painful: but she not permitting it, I went about the Extirpation of them with Caustick-stones and *ol. vitrioli* interchangeably used. I began with the right side, which was the lesser Tonsil, and prest my Caustick to the middle of it: then pulling it out, I prest upon the same place with a Stick dipt *in oleo vitrioli*: and so applied them interchangeably, (as I said.) Between while she gargled with Water, and took a breathing-time. Then I proceeded again in the work with Caustick. But it is not imaginable what a disturbance I met with from a frothy *Saliva* filling her Mouth the while to the very choaking of her. I wondred at it, but was told by her Mother then standing by her, that it was her Disease; and upon that account they had been directed to me as their last Refuge. At that sitting I penetrated into the body of the Gland, and eat it hollow, not unlike a worm-eaten Nut. Having wearied her and my self, I washed out the Salts, and dismissed her. The next day she came again with it much diminished; the middle of it had been consumed, and the Shell was contracted. I fell to work on the forepart near its *basis*, and easily penetrating through the external part, worked down the edges afore me, and in three or four sittings wasted the Gland so, that there remained only a Prominency in the *basis*; which being raw, I consumed it by touching it with the Vitriol-stone daily: to which purpose I have them also fitted in Shafts, so as they cannot slip out, though they should break in the use. Whilst this latter was cicatrizing, I began with the bigger on the left side, after the same manner as hath been said of the former. But the work growing tedious by reason of the continual flowing of that spumous Humour, I concluded the Extirpation of that by

Ligature

Ligature and Scissors, and cicatrizing it with the Vitriol and Alume-stones, dismissed her cured. Since which I have seen her often, and am satisfied that she is freed of the former Disturbances by the extirpation of those preternatural bodies.

7. Observat. of both Tonsils.

A young Gentlewoman of about sixteen years of age, nearly related to a neighbouring Physician, came out of the Country diseased as in the former Observation, with much the like Accidents of Catarrh, *&c.* attending. In viewing these Tonsils, observing some little Porosity in them, I made search, and did easily pass in a small Probe, without drawing any bloud or causing pain. They were perfect *Fungi*, and required to be eradicated. I would have done it by Ligature and Scissors: but it not being admitted, I proceeded by Caustick, as abovesaid; and not meeting with that disturbance from the *Saliva* as in the former work, I went on more easily, and the sooner extirpated them. Since when she hath been freed of the foresaid Disturbances, and enjoys a good health.

There also happeneth an Elongation of the *Uvula* through the abundance of salivous Humour flowing upon it: in which case, if it touch upon the root of the Tongue or upon the *Epiglottis*, it causeth a frequent hauking, and in progress maketh a vexatious Catarrh.

8. Observat.

Such was the case of a Servant-maid to a Noble Lady in the Country. Various Medicaments had been prescribed ineffectually: I being in that Family was desired to see her. Looking into her Mouth, I saw the *Uvula* hang dangling upon the root of the Tongue. It was not swelled nor inflamed. I supposing it the cause of her Distemper, took hold of the lower part of it with my *Forceps*, and at the same time cut it shorter with a pair of Scissors. It did not bleed a Spoonful: and afterwards it cicatrized of it self without application of any kind of Medicament, and she was thereby freed of the Defluxion. Such another I cut off in a Servant of his *Majesty* belonging to *Hampton-Court*, and some others who were so afflicted, and thereby freed them of their Catarrh, when all other Remedies failed.

CHAP.

Chap. VIII.

Of Ranula.

Deſcription. *Ranula* is a ſoft Swelling poſſeſſing thoſe Salivals under the Tongue. It is made by Congeſtion, and in its progreſs filleth up the ſpace between the Jaws, and maketh a Tumour externally under the Chin.

Cauſe. It is cauſed by a pituitous Matter (ſay Authors) *è Cerebro in Linguam prolapſa.* But late diſcovery hath made it manifeſt to ariſe from a congeſtion of Humour in the inferiour ſalival Gland, which is ſeated there, as I have already intimated.

Signs. It is a ſoft Tumour without pain or alteration of colour in the Skin. It yieldeth to the impreſſion of your fingers, but riſeth upon the taking them off; and containeth a Matter not unlike the White of an egg, or ſuch as we meet with in an *Atheroma.* It is alſo diſcovered by a Croaking in their Speech.

Prognoſtick. They are not dangerous as to life, but are difficult of Cure.

Cure. The *Cure* conſiſteth in the proſecuting the ſame method which hath been propoſed in the Cure of *Strumæ.* The Topicks ought to be diſcutient; amongſt which all the ſorts of Salts and Aromaticks diſſolved in convenient Liquors are proper to hold in their Mouths: *viz.* ℞ *piperis, zinziberis, an.* ℥j. *ſal. commun. & gemmæ an.* ℈ij. *origani, calaminth. rad. ireos, hermodact. an.* ℥ß. *maſtich.* ℈j. *Miſc. & fiat Pulvis.* Theſe may be boiled in Wine, or mixt with Oxymel; or the Tumour may be rubb'd with the Powder. To the external Tumour you may apply ſuch Diſcutients as have been preſcribed for *Strumæ.* If by theſe Applications the *Ranula* do not diſcuſs, you muſt open it by actual Cautery, and dreſs it as ſhall be ſhewed in the following Obſervations.

1. Obſervat. of *Ranula.* A Gentlewoman aged 35 years came to me recommended by Sir *Fr. Pruj.* She had a large Tumour lying between her Jaws under the Tongue, and reaching to her Fore-teeth, making a great Swelling externally under the Chin. It cauſed a Croaking in her Speech, and ſeemed troubleſome to her. She had paſſed through a Courſe of Phyſick, and uſed various Medicaments to it unſucceſsfully. I propoſed the letting out the Matter by actual Cautery: but ſhe not permitting it, I opened it by making an Inciſion on each ſide near the Tongue, and diſcharged about two Bloud-porringers full of an albuginous Matter: upon which the Tumour ſunk. I then made a ſearch with a Probe, and perceived the Matter had not only made a deep Cavity downward, but alſo rendred all the inner part of the Tongue hollow. I dreſſed the Abſceſs with *ſyrup. de roſis ſiccis*, and applied *empl. ad herniam* with a third part of *empl. Cæſaris* externally under the Chin; deterging it afterwards with a Solution of *mel Ægyptiac. in decoct. ſalviæ, beton. apii,* &c. then incarned and cicatrized it. But ſome while after it roſe again in a Tumour as formerly. Upon ſight whereof I opened it by actual Cautery on both ſides of the *Ranula*, by which the Matter was again diſcharged, and the Tumour waſted. During the time I was endeavouring the Cure, ſhe was purged,

and

and put into an Antiſtrumatical courſe of Phyſick, and was at laſt cured as aboveſaid. Whether ſhe relapſed afterwards I know not, having neither ſeen nor heard of her from that time to this.

An old Gentlewoman came out of the Country to me with a long Swelling on each ſide under her Tongue, of a fleſhy colour, which felt under my fingers like the Gills of a Fiſh. They were not painful, but very uneaſie to her. I ſuppoſed them to have Matter in them, and attempted to ſhrink and dry it up, as hath been propoſed in the method of Cure; but without ſucceſs. I then ſlit the one open the whole length; but there flowed out only a florid bloud, which I ſtopt by waſhing her Mouth *cum aceto*: then laid open the Tumour on the other ſide. They cut like cartilaginous bodies. I ſtopt the bleeding of this like as I had done the other, and dreſſed them both with an armed Probe dipt *in tinctura vitrioli dulcificati*, deſigning to dry them up that way. From the time I opened them, ſhe complained of Hairs in her Mouth, and frequently endeavoured with her fingers to pull them out, and perſwaded me to do the like: but I could feel no ſuch thing. She came to me daily to be dreſſed. The Abſceſſes digeſted, but the Tumours would not ſink: wherefore I cut off their Lips; yet they did not lie ſo ſmooth as I deſigned. Upon which conſideration I would have burnt them by actual Cautery: but the mention of that ſo terrified her, that ſhe came no more to me. I have inſerted this Caſe for the rarity of it, and am confident the actual Cautery was the proper and certain way of Cure. 2. Obſervat. of *Ranula*.

A Young fellow was commended to my hands who had a painful Tubercle in his Tongue. I made Inciſion into it according to its length, and thruſt out a Stone bigger than a ſmall Olive. I dreſt the Abſceſs with *ſyr de roſ. ſiccis*, and thereby cured it in few days. 3. Obſervat. of *Ranula*.

A TREATISE

A TREATISE OF WOUNDS.

SOUNDS.

OR

TREATISE

A

OF WOUNDS.

The Fifth Book.

CHAP. I.

Of WOUNDS in general.

A *WOUND* is a Solution of continuity in any Part of the body suddenly made, by any thing that cuts or tears, with a division of the Skin. A Wound defined.

This *Definition* differs much from what is usually delivered by Authors; and it is fit it should. For they generally defining a Wound by a Solution *in parte molli*, do thereby exclude a Cut made into a Bone, as that into the *Cranium* by a Pole-axe, *&c.* which why it should not be called a Wound I know not. I say, it is *made by any thing that cuts or tears.* Other Authors define it to be made by an external Instrument, *&c.* How then do they call that *fracturam cum vulnere*, a Fracture with a Wound, where the Bone from within makes the Wound, and thrusts it self quite through the Flesh? *Sennertus* adds to his Definition, that it be done *à re secante & acuta:* yet he reckons those for Wounds that are made by Bullets, although it be Cannon-shot. I do therefore think it fit to make my Definition more comprehensive, and to take in whatsoever makes a sudden Solution of continuity, at least immediately and by it self, on what Part soever it lighteth. So a Cut into a Bone is a Wound: Tearing the Flesh, Nerve, Sinew, Tendon or Cartilage, by Bullet, Stone, Splinter, *&c.* is a Wound. Only I add this restriction, that *the Skin must be* likewise *divided:* by which last words I exclude Fractures that come not through the Skin, and Contusions if the exteriour Parts be continuous. But by the word *Skin* I understand not only the external *Cutis*, but also the inward Membranes of the Gullet, Ventricle, Guts, Bladder, *Urethra*, and Womb; all which are capable of Wounds from sharp Instruments, either swallowed, or thrust into them.

A Wound thus defined admits of many *Differences*, of which I know none that can be properly called essential. Great or small, deep or shallow, wide or narrow, straight or crooked, round or angular, are but accidental Differences. Distinctions taken from the Weapons, whether sharp or blunt, Sword, Rapier, Difference of Wounds.

Rapier, or Bullet, Cut, Prick, or Tearing, are likewiſe but accidental. Thoſe that look moſt like eſſential Differences are they which are taken from the Subject in which the Wound (which is it ſelf but an Accident) inhereth, *viz.* from the Fleſh, Skin, Brain, Nerve, Tendon, Artery, Vein, Griſtle, Bone, *&c.* All which, being the ſeveral Subjects of Wounds, may well be allowed to ſpecifie them; and ſo much the rather, becauſe from the nature of them we raiſe our greateſt Indications of altering the method of Cure. To this Head may likewiſe be referred the diviſion of them into Simple, or Compound.

Signs. Wounds are in themſelves ſo viſible, that they need no general Marks to be known by. But the peculiar affections of the particular Parts hurt, and the methods of diſcovering what inward Part is wounded, by obſervation made of the Symptoms that happen, are fully handled in thoſe Chapters which treat of the Wounds of the ſeveral Parts.

Prognoſticks. The *Prognoſticks* are there alſo delivered, that the young Chirurgeon may be informed how to make judgment of them, and avoid the ingaging himſelf in promiſing a Cure of ſuch Wounds as are mortal. The greater Symptoms of *Gangræna*, *Paralyſis*, and *Spaſmus*, I have tranſlated to *Gunſhot-wounds*, they being there more frequent and uſual. *Hæmorrhagiæ* are ſpoken of in this preſent Treatiſe.

Intentions of Cure. The Wound being a Solution of continuity, doth require to be made one again, Unity being the perfection of whatſoever hath a being. To effect this is the work of Nature and Art; both muſt mutually joyn their helping hands: and unleſs both the vital Faculties and nouriſhment of the Part do aſſiſt the Art of the Chirurgeon, it will be loſt labour: here muſt be a joynt meeting and agreement of all in one.

In Simple Wounds the Chirurgeon is to afford his aſſiſtence five manner of ways; the omitting of any of which will render him negligent or ignorant in his Trade.

The firſt is, in careful and diligent taking away all ſuch extraneous bodies as by their interpoſition may hinder the true Agglutination of the disjoyned Parts, whether they be concrete Bloud, Hair, Sand, Duſt, pieces of Bones, Cartilages, or pieces of the Weapons, Rags, *&c.*

The ſecond is, in bringing the Lips of the Wound even together, which were ſeparated.

The third is, in retaining the Lips ſo brought together, that they may by Conſolidation be reſtored to their former figure.

The fourth is, in conſerving the Temperament and natural Heat of the Part, in order to Unition.

The fifth is, in preventing ill Accidents, and correcting ſuch as have already ſeized on the Part.

What is required in compound and contuſed Wounds. Thus much is required if the Wound be only Simple: but if it be a Compound Wound, with loſs of Subſtance, or Contuſion, then he hath ſomewhat more to do. As where there is loſs of Subſtance, there he muſt aſſiſt Nature with his Sarcoticks, for regaining what is loſt: and where there is Contuſion, there he muſt endeavour the turning what is contuſed into *Pus* or Matter, which muſt be performed before there can poſſibly be any Reunion.

The firſt Intention, in taking out extraneous bodies. As long as there is any ſtrange body or different ſubſtance to keep off the Unition, you muſt not hope to make any Cure of a Wound. Therefore if any ſuch be to be drawn forth, before you attempt it, conſider ſeriouſly, firſt, whether it can be done or no; ſecondly, whether ſafely.

For, firſt, ſometimes the Weapon ſticketh ſo faſt, that by no art it can be ex-

extracted. Then it is of neceſſity to be left to Nature, who in this caſe ſometimes worketh Miracles. For I have known pieces of Splinters, *&c.* ſometimes ſtick ſo faſt in the inward Parts, or to have been ſo incloſed, that we could by no means get them out: yet at length, upon Apoſtemation of the Part, they have thruſt forth.

Secondly, you are to conſider whether you may with ſafety pluck out the Weapon or no. Some will live a day with the Weapon in their Body, who would expire upon the moment of Extraction. But if your judgment ſuggeſt to you that the Patient is recoverable, make haſt, out with it before the Part be inflamed.

Which way the Weapon is to be drawn out.

If the Weapon have pierced deep, and through great Veſſels and Nervous places; or if the Part oppoſite to it be full of Veins, Arteries and Nerves, or have a Bone lying in the way, or over againſt the Wound; if there be no great fear of Laceration, pull it out the ſame way it went in. For the effecting of which, our Maſters have left us variety of Inſtruments, the Figure and Uſe whereof you may ſee in *Sculletus*. But if the Point of the Weapon have pierced above half way through the Member, and there be no Bones nor notable Veſſels to hinder you, (here is uſe of your Anatomy and exact knowledge of the Parts,) either thruſt the Weapon through, or make way for it by Inciſion on the contrary ſide: but beware the Weapon be not too big, leſt you do make two large Wounds for one.

Weapon ſtuck in a Bone.

If the Weapon ſtick in the Bone, move it up and down to looſen its Point, and then pluck it out: but in caſe it will not move, cut away the Bone before you extract it.

Weapon ſtuck between the Joynts.

If a Weapon be faſtened betwixt two Joynts, make an Extenſion of the Parts both ways, as it is the manner in Fractures and Diſlocations, that ſo the Tendons and Ligaments being ſtretched, the Weapon may with more eaſe come out. But do this with moderation, leſt you break ſome notable Veſſels, and a Flux of bloud or ſome ill Accident befall you in your extracting it. It will be neceſſary in this work, that you conſider the poſition the Part was in when the Wound was inflicted. *Geſner* hath a Story, in his *Obſervat. de Chirurgiæ dignitate & præſtantia*, of a Chirurgeon, who when he could by no means get forth an Arrow, asked the wounded Patient in what poſture of his body he received the Wound. Underſtanding it was done on Horſeback, he placed him in a riding poſture, and immediately drew out the Weapon.

The Weapon thus drawn out, cleanſe it from Rags or ought elſe, and permit the Wound to bleed, accordingly as you in your judgment ſhall think fit, ſtill having reſpect to the Conſtitution and Habit of body, that what is in the ſmall Veins cut aſunder may flow out, as well to hinder Inflammation, as the generation of much Matter. The Bleeding ſtaid, if there be Hair growing about the Wound, ſhave it off: then wipe away the clotted Bloud with a Sponge dipt in Red wine, Oxycrate, or Water. But if it ſtick deep in the Wound, be not too buſie with your armed Probe, for thereby you may ſtir up a new Bleeding; whereas this concreted Bloud keeps the Wound warm, and defends it from the outward Air; and by digeſtion Nature will thruſt it forth.

The ſecond Intention, in making Unition.

The ſecond Intention is performed by bringing the Lips of the Wound exactly together.

This Intention is delivered in a few words, but they are to be obſerved as a Law; for without that Reduction of the Lips, a ſlow and deformed Healing follows. Nature hath nothing to do here in bringing the Lips together, that is the ſole work of the Chirurgeon; who muſt not lay a Pledgit, or croud a

Doſſil

Doſſil of Lint or Tent into a little Wound: no, that is the way to keep the Wound open, and make it painful, whereby Defluxions are ſtirred up, the Temperament of the Part weakened, and the Cure prolonged; contrary to the intention of all who have writ of Wounds, and to the practice of our knowing Chirurgeons here. Yet amongſt the Pretenders to that Art we often meet with ſuch work. As for inſtance:

Obſervation concerning Doſſils in ſimple Wounds.

A Young man was wounded near *High-gate* in the Back, ſlanting under the right *Scapula*; he had another Wound alſo on the Back, and another through the upper part of the left Shoulder, with a long Gaſh over the Forehead, and others beſides, ſome whereof were not conſiderable. The next day being carried thither to dreſs theſe Wounds, I found them all diſtended with Tents and Doſſils of Lint, diſpoſed to inflame and ſwell, and the Patient exceeding full of pain. After I had taken out theſe extraneous bodies, my endeavour was to dreſs them ſo, as I might incline their upheaved Lips to return to their natural ſite. To which purpoſe I fomented them with Milk, and applied Pledgits ſpred with a Digeſtive *ex terebinth. cum vitell. ovi*, embrocating them with *ol. roſ.* then by *empl. è bolo*, and Bandage with gentle Compreſſion, I dreſt him up; and afterwards here in Town cured him by Sarcoticks and Epuloticks, as in Compound Wounds; a longer work, which at firſt ought to have been done by Agglutination. Parts ſeparated and diſjoyned are to be brought together gently and equally, that they may touch one another, and ſo be prepared for Unition.

Unition to be effected, firſt, gently:

This muſt be done (I ſay) firſt *gently*; *ſenſim & ſenſim*, as *Fallopius* hath it, by little and little; not haſtily at one pluck. If the Parts be equally ſoft, bring them equally together: if the one ſoft, the other hard, and not to be moved but with difficulty, bring the ſoft part to the ſtubborn. If the Parts be grown ſtiff with cold, as when the party hath been left in the field all night, which after a Battel hath often happened, (and particularly to a merry fellow, a common Souldier, that uſed to wear an iron Scull under a Cap, and from thence was called by a Nick-name; his Wounds were large, and the Lips hardened with the cold, and it was well for him, his Bleeding being thereby ſtayed;) in this caſe you are to ſupple them by fomenting them with Milk or warm Water, or elſe embrocate them with Oil, till you perceive the Lips made ſoft enough for your purpoſe, before you endeavour Reunion.

ſecondly, equally.

Secondly, *equally*, that the Parts cut aſunder may anſwer one another, as well in the top as the bottom, brim to brim, and, if poſſible, underneath Veſſel to Veſſel; that Nature may be in a capacity of doing its own work, and by virtue of its Balſam re-unite, agglutinate, conſolidate, and heal the Wounds: in all which Intentions ſhe is the Agent, and the Chirurgeon only the Aſſiſtent. Which Aſſiſtence that it may be the more effectually given, we muſt go on to the Third.

The third Intention, in retaining the parts united.

The Third Intention is, Deligation, or retaining the Parts ſo joyned together.

Bandage.

For the effecting of this, our famous Maſters have left us two principal means, *Faſciæ* and *Suturæ*, Rowling and Stitching: to which ſome, nay moſt of them, added *Fibulas*, or Claſps. But I will not put you upon that. If the Wound be ſmall, and in a Fleſhy part, & according to the length of the Fibres or Member, you may perform the Cure by *Bandage*; for here Nature will truly act her part, by application of bloud and nouriſhment to both ſides indifferently, and finiſh the *Coalitus* without your farther aſſiſtence. And this is that which gives ſuch credit to the Sympathetick Powder. In the application of this, it becomes every Chirurgeon to be much experienced, in reſpect

reſpect of the unſpeakable commodities which the whole Art receiveth thereby.

By Bandage not only are Parts dextrouſly accommodated for Union; but ſuch alſo as would unnaturally grow together are kept aſunder. In Burnings, Scaldings, *&c.* the Fingers would many times grow together, the Chin would grow to the Breaſt, the Arms to the Sides, were they not this way hindred. By them are Fluxes averted, and the delapſe of Humours into the inferiour Parts forbidden; and, being already lodged, they are preſt out. By theſe are good Juices advantageouſly forced into Parts emaciated. As, if the right Arm pine away, rowl up the left from the Hand to the Arm-pit, that the Bloud being preſt out into the *Vena cava*, or rather hindred to flow in ſo faſt by the Artery, may with more eagerneſs flow into the other ſide, where it was wanting. By theſe we ſee great Fluxes of bloud, large *Hæmorrhagiæ* every day ſtayed. By them are ill-ſhaped Wounds brought into better figures, and made more apt to be cured. By them is the force of your Applications helpt and furthered, they keeping them cloſe to their proper places, where your care hath beſtowed them. By them is the true natural form and beauty of the Part commonly preſerved. Their uſe.

Three eſpecial ſorts of Faſciation or Rowling, pertaining to our preſent work, have the Worthies of our Profeſſion commended to poſterity. The firſt they term *Incarnatrix* or *Agglutinatrix*, the Incarnative or Agglutinative: the ſecond, *Retentrix*, or Retentive: the third, *Expultrix*, or Expulſive. Three ſorts of eſpecial uſe.

The *Incarnative* is that which brings the Lips of the Wound together, and conſerveth them in their right figure. It muſt be more ſtrict than the Retentive, and more looſe than the Expulſive; and is the moſt uſeful in ſimple, freſh, and yet bleeding Wounds. The manner of performing it is thus. 1. Incarnative.

Have in readineſs a Rowler of ſuch matter, length and breadth as I ſhall anon ſhew you; rowl it up at both ends firmly to the middle; then lay the middle part of the Rowler on that part which is oppoſite to the Wound, to prevent pain and inflammation. You are then, after you have made a turn upon the Wound with both ends of the Rowler, to go up with the one, and down with the other, and take ſo many turns about the Part as may be requiſite for the reſtraining the Flux of bloud, or, according to the Seaſon of the year, to defend it from cold, and yet not keep the Wound too hot, for that may weaken the Part. You muſt alſo be careful that your Bandage be not too hard, ſo as to intercept the Spirits. Your Rowler running downwards will preſs out the Matter from the affected Part, and by paſſing upward hinder the influx of Humours.

The *Faſcia Retentrix* is uſed to keep your Dreſſings on cloſe about the Wound. They for the moſt part are only of uſe in Wounds of the Head. There muſt be a moderation in binding with this Bandage. 2. Retentive.

Faſcia Expulſiva is performed by a Rowler of one hand: the ſpecial uſe of it is, to expel Matter out of *Fiſtula's* or Sinuous Ulcers; as alſo to prevent the deſcent of Humours, and to expel ſuch as have already ſeated themſelves upon the Part wounded or otherwiſe. Do it in the manner following. 3. Expulſive.

Begin in the ſound part, beneath the ſeat of the Humours, and rowl upward pretty ſtreight at firſt, and by degrees; as you come nearer the Mouth of the Wound, gentlier and gentlier. If you will preſs out the Matter contained in the Cavity of the Wound, you muſt rowl looſely there a turn or two, then harder, and yet a little ſtreighter, the higher you go, to hinder the deſcent of Humours; but not too hard, for fear of harm. *Terminus ſit bona laborantis* How hard to bind.

borantis tolerantia ; Celſus : Let it be made with ſuch moderation, as the Patient may well endure it. *Hippocrates de Offic. Medic. Vinculorum aliud per ſe* (ſaith he) *remedio eſt, aliud iis quæ remedio ſunt ſubſervit :* Amongſt Ligatures, ſome of themſelves are Remedies, others are ſervants to Remedies. And true it is in theſe: for the Incarnative and Expulſive are in themſelves, as you may perceive, Remedies; and the Retentive the common ſervant to them all.

Four other Bandages added by *Fallopius.*

To theſe *Fallopius, in Tract. de Vulneribus in genere,* adds four more; *viz.* 1. *Faſciam disjunctionis,* 2. *Faſciam directionis,* 3. *Faſciam facientem Apoſtema,* 4. *Faſciam prohibentem Apoſtema.*

1. *Faſcia disjunctionis.* By this Rowling Parts are kept from joyning together, as the Fingers when they are bared of the *Cutis.*

2. *Faſcia directionis* is that which aſſiſteth in making a crooked Part ſtraight, or bendeth a Part unnaturally ſtraight to his proper figure.

3. *Faſcia faciens Apoſtema* is that which will procure an Apoſteme, by ſummoning the Matter up into one part, which might perhaps dangerouſly flow into others, and thoſe more principal.

4. *Faſcia prohibens Apoſtema* is that which forbiddeth the collection of Matter, and conſequently hindereth the generation of an Apoſteme.

Of what Rowlers are to be made.

For the matter of your Rowlers, they muſt be made of good ſtrong even Cloath, white, clean, and gentle, without Hem, Seam, or Thread hanging by.

Their length.

Let the length be ſuch as the Member affected and the multitude of circumvolutions require; longer in Winter than in Summer. *Hyeme* (ſaith *Celſus*) *ſæpius faſcia circumire debet ; Æſtate, quoties neceſſe eſt :* Rowl on, on, and again, in the Winter; in the Summer no oftner than needs muſt. His ground, I ſuppoſe he had from our great Maſter, *Sect.* 5. *Aphor.* 20. *Frigidum ulceribus mordax, cutem obdurat, dolorem inſuppurabilem facit :* Cold nippeth a Wound, makes the Skin hard, and cauſeth pain which cannot be digeſted. For the Breadth of the Rowler, *Petr. Pigræus, Lib. de Vulneribus,* is moſt punctual. Let them be for the Shoulders, ſaith he, of ſix inches broad; for the Thighs, of 5 inches; for the Legs, of 4 inches; for the Arms, of 3 inches; for the Fingers and Toes, of one inch broad. But this your judgment will teach you to alter, according to the conformation, ſhape and poſiture of Parts.

Their breadth.

Faſten not your Rowler by tying a knot; nor yet ſow it upon the Wound, or where you cannot eaſily come at it again; leſt you hurt your Patient. Quickneſs and neatneſs diſtinguiſheth the Workman from the ignorant and unskilful. As the Subject is more noble you work on, ſo ſtrive to perform your office more excellently; intending not only your profit, but decency in the diſpatch; that you may pleaſe the Eye, both in the time of, and when you have done your work: thus ſhall you gain credit to your ſelf, and endear your Patient to ſubmit the more readily to your Rules, which is not the leaſt part of the Cure.

Sutures Three ſorts.

The next thing that offers it ſelf for keeping the Lips of the Wound together are *Sutures,* and they are of three ſorts; firſt, the Incarnative, ſecondly, the Reſtringent, and thirdly, the Conſerver.

1. Incarnative.

The firſt is that which is in moſt uſe amongſt us, and is by making ſo many Stitches at a diſtance.

2. Reſtringent, or Glovers' Stitch.

The ſecond is the Glover's Stitch, and much in uſe among the *Spaniards,* who ſtitch almoſt all Wounds by it. In the Forehead and Face I have ſeen them bring the Wounds very cloſe: the third day they commonly cut the Knots off, and draw the Thread out; then with dry Stitches keep them ſo brought together; and in two or three days more they cure them.

The

The third Stitch is of use in great Wounds, and those of the *Oesophagus*, &c. to hold them forcibly together. It is performed with Pins or Needles, as in Hair-lips. Conserver.

There are four sorts of Stitches, mentioned by the Ancients, for the Wounds of the Belly, whereof I shall take notice only of one, which I have made use of my self in the stitching of those Wounds; the manner whereof is thus: You are to take up the *Peritonæum* on one side, and leave it on the other; and then take it up on the other side, and leave it on this. It is so made, that the *Peritonæum*, which is a dry body, may be united with the Musculous flesh: otherwise only the Fleshy parts would unite, and the *Peritonæum* lie open, upon which a *Hernia* would certainly succeed, and the Patient be put to the trouble of wearing a Truss the rest of his life. The Thread you are to use for this purpose ought to be a strong round white Thread proportionable to the Needle, and both accordingly as the Wound requireth. You must remember to cleanse the Wound of its clotted Bloud, if you can: but however go on with your work, that Bloud will find its passage out.

In great Fluxes of bloud the Glover's Stitch is best. Endeavour in your Stitching to bring the Artery and Vein to its wounded fellow; so shall you the likelier secure your self, and make the work more seemly.

In the Incarnative, you are to consider the Wound. If you find it but the length of a finger's breadth or a little more, 'tis not worth the stitching: your Medicaments and Bandage will keep the Lips together, and quickly heal it.

If the Wound be of two Fingers breadth, make one Stitch in the middle; if three fingers breadth, make two Stitches; if four fingers breadth, three Stitches; and so go on, making a Stitch less than the Wound is in number of fingers. Sometimes in declining Parts we make our Stitches at a little more distance. The distances of Stitches.

The time of taking out the Stitches is, when the Parts are agglutinated; which is sooner or later according to the Habit of body, or Season of the year. Commonly in great transverse Wounds eight days are required; in less Wounds not so deep, three or four days: in the Face, do it the next Dressing, lest the Stitches make so many Scars. But in this work you must use your judgment: for sometimes the Wound may seem to be agglutinated, while the Lips are held together by Suture, which, after the Stitches are cut out, is not so exactly cicatrized, but that you might have done better to have left the Stitches a day longer. But in this case the dry Stitch may help you; and that is another way of keeping these Wounds together. They are made with little bits of strong linen Cloath, triangular or quadrangular, or of such figure as may serve your purpose. These are most proper in the Face, to avoid the other way of Stitching: yet they are of use in other Parts, to preserve the Lips close. They are commonly spred with a Mixture of *sang. dracon. thuris, aloes, farin. tritic. gumm. tragacanth. an. part. æqual. cum albumin. ovi.* They ought to be of such a consistence, that they may adhere firmly to the Skin. They must be applied at such distance as they may best perform their work. After they are dried on, you must bring the Lips of the Wound close together, and retain them so, taking care they be not wet by the Matter. Time of taking out the Stitches. Caution. Dry Stitches.

The Fourth Intention is, the preserving the natural Temperament of the Part, that thereby Agglutination may be obtained. Which Agglutination indeed, as I have already hinted, is the work of nature alone, by whose only power all Parts wounded, disjoyned and broken, are knit and made one again. But in regard there is a certain *Medium*, which answers in proportion to a Glew, required in this work, Nature taketh what is next hand, even The fourth Intention, in preserving the natural temperament.

Nature agglutinative of Wounds, healing.

the Nouriſhment of the Part which is hurt, to make it of. *Ubi morbus, ibi remedium*, is here as an Oracle; Where the Diſeaſe is, there is the Remedy. No ſooner is the Wound made, but the Balſam is diſcovered. Bloud (at leaſt the ſerous part of it) is the Glew which ſhe uſeth, both in curing by the firſt and ſecond Intention. The firſt being performed *per Symphyſin*, *i. e.* a Re-union of the Parts without any *Medium*; by which word I here mean any *Callus* or Fleſh, or other body interpoſed; for in another ſenſe the Balſam of Nature is the *Medium*, the inſtrument of Unity, and knits the Parts together: the ſecond *per Syſſarcoſin*, *i. e.* with a *Medium*, or interpoſition of ſome Fleſh or Callous ſubſtance, that fills up the ſpace between the Lips of the Wound. Great care muſt therefore be taken, that the Bloud offend neither in quantity nor quality. Too much bringeth on proud and looſe Fleſh; as too little doth defraud the Part, and affordeth not a competency of Matter for the work. If the quality of the Bloud be ill, it cannot produce good Fleſh: as the Bloud is, ſuch is the Fleſh.

1. *per Symphyſin*;

2. *per Syſſarcoſin.*

Regiment, 1. Univerſal.

The means whereby this Intention is performed is a Regiment of the Patient: and that is either Univerſal, as to his Diet; or Particular, as to the peculiar management of the Part it ſelf. As to the Univerſal, we are to conſider, firſt, whether a full or ſlender Diet be to be uſed. This hath been a Diſpute in former Ages: but I think, no man of common ſenſe but knows, that as a full Diet is hurtful for thoſe of a Plethorick Body, in Wounds where there is great Inflammation and like Symptoms; ſo when a Body hath been exhauſted through loſs of bloud or the like, it's reaſon that a greater liberty ſhould be allowed, as to take Broths, Jellies, new-laid Eggs, *&c.* With al I conceive there ſhould be Conſideration had of the Patient's manner of living. Some people have ſo accuſtomed themſelves to drinking of Strong drinks, that without ſuch a proportion they cannot live. I could inſtance it by many Stories, if it were neceſſary; but I ſhall give you one for all, and that from abroad.

Conſideration from the Patient's manner of living.

Ed. Br. cured by allowing him Wine.

Ed. Br. an old Servant to a Perſon of Honour, was bit by a Monky in the Back of his hand. To prevent Inflammation, I forbad him Wine. The next morning he complained he had not ſlept that night, that he was faint and ſick, and that his Wound was the leaſt of his ailment. That day he continued faint and ill, and the next morning complained again of his want of reſt; and that afternoon he ſwouned, and complained he could not live without Wine. He had good Broths, Caudles, and ſuch like; and I believe he did drink ſome Wine. (But he was allowed by his Maſter a Bottle of a Quart every morning for his Draught, and was ſeldom ſober.) His Wound was indigeſted and inflamed. I complied with his deſire; he drank again as he pleaſed; his Sickneſs went off, his Wound digeſted, and he was ſoon after cured.

This I have ſeen often in ſome of the *Dunkerkers* at Sea, who drank extraordinarily, and were full of drink at the time of their Sea-fights. I could ſcarce ever cure any of them without allowing them Wine; and thereby their Spirits were kept up, and I had the liberty to bleed them as I thought fit. When theſe kind of people eat as plentifully as they drink, they then upon a ſudden change of Diet labour under a *Crapula*, and are ſubject to Fainting, or have Colick, *Dyſuria*, &c. and if the Wound happen in the *Abdomen*, it gives a ſuſpicion (to thoſe that are not well skilled in the Symptoms of Wounds) to think that it ariſeth from the penetration of the Wound, when there is no ſuch thing; and ſo by the perſeverance in thoſe Rules the Patient ſuffers.

It hath been a common Saying, *A Hair of the ſame Dog*, and thought that Brandy-wine is a common relief to ſuch. What then muſt become of ſuch a one,

after

after a hard drinking for many months together, if he chance in heat of drink to be wounded, and from that time his Chirurgeon condemn him to Ptisan for a week together, nay two days? will he not faint and languish, and his Wounds become indigested and inflamed? You may laugh at my pleading for them: but I hope you will consider I am a Water-drinker the while.

As for other things, such Diet is to be observed as their Strength will permit. We do not use to purge with Catharticks in Wounds, lest by stirring Matter it flow to the weak Part: but we allow Lenitives, as *Cassia*, Tamarinds, *Manna*, *Senna*, Rhubarb, with *Sal prunellæ*; also Electuaries, as *elect. lenitiv. diaprun. syr. ros. solut. de cichor. cum rhabarb.* also Broths wherein have been boiled Lettice, Succory, Endive, Sorrel, Purslane, Borrage, Bugloss, *&c.* And we let them bloud according to the Strength of their Body, & as Symptoms indicate.

Another part of the Regiment of wounded persons will consist in giving of Vulnerary drinks: of which we find many mentioned by Authors, and the *materia medica* very large; witness that great tribe of Vulneraries in *Parkinson*'s Herbal. Vulnerary Drinks, Powders, and Electuaries.

The most common Simples with us in *England* are Comfry, Bugle, Ladies-mantle, Agrimony, Sanicle, Pauls-betony, Fluellen, Perwinkle, Mugwort, Plantane, Horse-tail, Adders-tongue, Avens, Cinquefoil, Wild-tansie, Vervine, Ground-ivy, Golden-rod, Herb-trinity, Centory, St. Johns-wort, Snake-weed, Knot-grass, Mouse-ear, Yarrow, Scordium, Strawberry-leaves and roots, Tormentil, Bistort, Valerian, Red roses, *&c.* Some of these are made choice of to be boiled in Water, or White wine, with an addition of Honey: of which sort you have sufficient examples in the *Decoctum traumaticum* of the *Pharmacop. Lond.* Their principal use is in Wounds of the *Thorax* and *Abdomen*: yet they are frequently prescribed in all great Wounds. Sometimes also, if the Disease run out to a length, we add *Guaiacum*, *Sarsa*, and Scorbutical Medicines. There are likewise Powders made of Crab's-eyes, Coral, Nutmeg, *&c.* and Electuaries of some of the foresaid Roots and Herbs beaten up with these Powders.

The Particular Regiment is, in preserving the natural Heat and Tone of the Parts, without which we can hope for no Union. For the better understanding hereof, I must put you in mind, that there is not any Part of our body admits of a Solution of continuity without Pain. Every Scratch in the Skin, and little Cut in the Finger, is painful: much more are the deeper Wounds in the Flesh. This Pain stirs up a Heat fermenting in the serous part of the Bloud, which readily makes way to the Wound, and, if not timely prevented, distendeth and raiseth the Part into a Tumour with Inflammation. If this happens in a full Body, or one of an ill Habit, where the Bloud is serous, and more apt to ferment, the mischief is the greater. And if the Wound be in a declining Part, as the Legs, the influx of Humours is more abundant; and the Member through its weakness not being able to assimilate, nor yet expel them, is the cause that Crudities do heap upon the lower Parts, and make an Oedamatous Tumour. 2. Particular.

To make this more plain, I shall give you one Instance of the many that happen daily. A young Gentleman about 18 years of age, of a good Habit of body, one day sporting in the Country with his Gun and Dogs, was prickt with a Thorn on the outside of the Calf of his Leg. He took little notice of it till the Evening, and then dresst it with a little Balsam. The next Morning it was more painful and inflamed, and at length terminated in a *Phlegmon*. I was then sent for, and found the Tumour large and full of Matter, and in the lower part about the Foot an œdematous Tumour. I opened the Swelling above, and, discharging a quantity of Matter, cured the Patient as is usual in *Phlegmons*. A person prickt with a Thorn in his Leg.

If this perſon had been treated according to the univerſal Regiment, by Bleeding and lenient Purgatives, *&c.* nay, if only after this particular Regiment, in preſerving the Temperament of the Part, he had been dreſſed, as in this caſe he ought to have been, by Refrigerants and Aſtringents, to have prevented the influx of Humours, and with a Pledgit of *baſilicon*, to cauſe Maturation in the feſtred Scratch, with convenient Bandage over all; it had preſerved the Tone of the Part, and cured the Soar without farther trouble.

Medicaments proper in the beginning of a *Phlegmon.*

To proceed rationally by this Intention in Wounds, your firſt Application ought to be of ſuch Medicaments as have an agglutinative faculty, as *bolus Armen ſang. dracon. thus, aloes, gum. elemi, colophon. terebinth.* and apply over them ſuch as are cooling, and of an aſtringent quality, to reſiſt the influx of Humours, as Cloaths dipt in the Juices of the following Plants, *fol. plantag. equiſeti, millefol. vincæ pervincæ, ulmi*, or Red wine, or Oxycrate. To which you may add ſome of theſe Powders, *flor. roſ. rub. balauſt. nuc. cupreſſ. gallar. far. hord. & fabar. & oleum olivar. matur.* Theſe ſimple Medicaments may be proportionably mixed according to the Habit of body and condition of the Wound. In ſmall and ſuperficial Wounds, Nature of her own accord is wont to effect the Cure; ſhe ſeldom requiring more from us, than that the Lips of the Wound be brought cloſe together, and defended from the Fluxion, *&c.* as aforeſaid, and with Bandage ſo retained. A Pledgit of *liniment. Arcei* with *empl. diapalmæ* frequently ſerves the turn. But in greater Wounds that will not ſo eaſily be cured, we ſtitch the Lips together, and ſprinkle them with ſuch like Powder: ℞ *bol. armen. thuris, ſang. dracon. an. part. æqual.* and apply a Mixture of ſome of the ſame Powder with the White of an egg over them, with a Compreſs preſt out of Oxycrate, and a ſutable Bandage over all. This is generally the way: but leſt by the adheſion of this emplaſtick Medicament the Lips of the Wound ſhould be torn or diſturbed in taking the Dreſſing off, I chuſe rather to apply over the ſprinkled Powders a Pledgit with ſome of theſe following ſarcotick Unguents: ℞ *terebinth. Venet.* ℥iij. *gum elemi* ℥ij. *ſang. dracon. thuris, maſtich. an.* ℥j. *Miſc. & fiat Unguent. S. A.* or this; ℞ *terebinth.* ℥ij. *reſin. pin. oliban. colophon. an.* ℥jß. *maſtich.* ℥j. *croci* ℥j. *ceræ* ℥ij. *olei hyperic. q. ſ. fiat Unguentum.* Over which may be applied any of theſe following Emplaſters, *viz. empl. diapalmæ, diachalcit. de lithargyr. de bolo*, &c. In all Wounds where I deſign to cure by Agglutination, and would preſerve my Stitches, I forbear the uſe of Fomentations and ſlabby Medicaments: nor will you have occaſion for ſuch Applications, if you proceed rationally, as hath been above ſaid; for Nature will do her part towards the Agglutination of the Wound, if you defend it from the influx of Humours. I always accounting theſe Wounds near cured, when the Lips are retained cloſe together, and dreſſed as aboveſaid.

Of compound Wounds.

Thus far I have proceeded in the Agglutination of Simple Wounds: I ſhall now conſider of Wounds with loſs of Subſtance made by Bill, Pole-axe, Sword, *&c.* ſome cutting twice or thrice in one or near one place, whereby the Wound is large, tranſverſe, yea and oblique, at the ſame time, and the Lips contracted various ways, & ſo the Cure is rendred much more difficult. Theſe kind of Wounds are not ſo often ſeen in times of Peace, but in the Wars they are frequent, eſpecially when the Horſe-men fall in amongſt the Infantry, and cruelly hack them; the poor Souldiers the while ſheltring their Heads with their Arms, ſometime with the one, then the other, until they be both moſt cruelly mangled: and yet the Head fareth little the better the while for their Defence, many of them not eſcaping with leſs than two or three Wounds through the Scull to the Membranes, and often into the Brain. And if the man fly, and the Enemy purſue, his Hinder parts meet with great

Wounds,

Wounds, as over the Thighs, Back, Shoulders, and Neck. Mr. *Sanderson*, now one of the Chirurgeons of St *Bartholomew's-Hospital*, was once with me assisting in the dressing such. At *Sterling* in *Scotland* Mr. *John Chase*, Apothecary to his *Majesty*, helped me in the like work. One of the Souldiers had such a gash thwart the Nape of his Neck, that it was a wonder to us he lived. His Wound was full of Maggots; and so were those of all the rest that were inflicted on the Hinder parts, they having been some days undrest.

In order to the Cure of these Wounds, you are in the first place to cleanse them, and then to endeavour the bringing of the Lips together by the Incarnative Suture, making so many Stitches as may retain them together. And if you doubt this way not sufficient, you may then, as in a Hair-lip, pass Needles or Pins through the Lips of the Wound, with little Plates of Lead to secure them from tearing. But if the Wound be so deep as you suspect its incarning in the bottom, you must leave a declining Orifice for the discharge of Matter. If the Wound hath lain long undressed, or were not stitched at the first dressing, and be now so contracted and stubborn that the Lips of it will not be brought near one another; you must then foment them warm with some lenient Decoction *ex fol. & rad. althææ, malvæ, viol. sem. lini*, &c. or with new Milk; then joyn them together, as hath been said, and dress them as Wounds so stitcht. But if you left a declining Orifice, keep it open by a small Tent dipt in some such Medicament as shall be by & by prescribed, and after Digestion withdraw the Tent, & heal it as such like Wounds. The greater Wounds, which cannot be brought together by Suture, must be digested, and so disposed as that new Flesh may be generated to fill up the Cavity: to which purpose ℞ *terebinth.* ℥iij. *far. hord.* ℥vj. *thuris* ℥j. *Misc. cum vitell. ovi.* To this after a day or two may be added *mel. ros.* During which the Humours ought to be diverted from the Wound by the universal Regiment set down of Bleeding, Purging, *&c.* and by the external application of Refrigerants with good Compress and Bandage, to press the Lips of the Wound together, that it may be the sooner cured. After the Wound is digested, you may deterge with *mundif. Paracelsi*, or with this of *Quercetan's*, which is also a good Sarcotick: ℞ *fol. plantag. apii, an.* Mj. *ros. rub.* Pij. *vini rub.* ℥viij. *coq. ad medietat. in colat. dissolve sacchar. rub:* ℥ij. *terebinth.* ℥j. *far. juniper. & orobi, an.* ℥vj. *aloes, myrrhæ, an.* ℥j. *decoq. rursus, & addendo cæræ q. s. reduc. ad formam Unguent.* or with this Balsam of the *Spanish* Priest, commonly called *ol. Aparici*; ℞ *ol. olivar.* ℥iij. *terebinth. Venet.* ℥viij. *frument. integr.* ℥j. *sem. hyperici* ℥ij. *rad. card. benedict. rad. valerian. an.* ℥j. *pul. thuris, vernicis, an.* ℥ij. The Seeds and Roots are to be cut and beaten, and infused two days in White-wine: then the Oil and bruised Wheat must be put to it, and so boiled together to the consumption of the Wine; then strain the Liquor hard out, and add the *terebinth. thus*, &c. giving it two or three walms more, and reserve it for your use. In these larger Wounds, it will be necessary to apply warm Stupes wrung out of Red wine wherein have been infused *flor. ros. rubr. balaust. nuc. cupress.* &c. But those Wounds that are full of Maggots or Worms ought to be washt with a Decoction *absinth. card. benedict. rad. gentian. myrrh. aloes*, &c. and deterged as above said with Mundificatives: after which you may proceed in the same method of Cure as is before mentioned. As to the time of dressing Wounds, the second dressing ought not to be till the third day, by which time we suppose them somewhat digested: from that time every other day may be sufficient. *Galen*, speaking of the dressing Ulcers, saith, he dressed them but every third day, though the Matter flowed very much; and but every fourth day in Winter. Indeed the too frequent dressing is hurtful: yet there may be occasion of opening them sooner than by him proposed, for the strengthening of

Bandage,

Bandage, or for the preſerving of the Stitches by putting on dry Stitches. Alſo the retention of Matter cauſeth the Suture to relax, and the Lips of the Wound to open again: therefore that ought to be left to the diſcretion of the Chirurgeon.

After the Cavity in the Wound is incarned, you may cicatrize with *unguent. deſiccat. rubr. aq. calcis*, &c. or with the Vitriol or Alume-ſtone, and dry Lint.

Of contuſed Wounds.

If the Wound be made by a Fall or Blow with great Contuſion, you muſt endeavour that the bruiſed Fleſh be digeſted & turned into Matter; to which purpoſe *unguent. baſilic.* is proper, applied warm upon Lint, or diſſolved in *ol. lumbric. lini*, or ſuch like, anointing the Parts about with *ol. roſ. & myrtill. cum album. ovor.* with which you may alſo make up a Reſtrictive, with an addition of *bol. Armen. ſang. dracon. balauſt. flor. roſ. rub.* and apply it over all. But if the Wound were of ſome days continuance before you were conſulted, you muſt then foment it with Diſcutients, and embrocate the contuſed Parts with *ol. cham. ſambuc. rutac.* &c. and continue the application of Maturatives, proceeding as is ſet down in the Chapter of *Ecchymoſis*. After ſeparation of the contuſed Fleſh, the loſs of Subſtance muſt be reſtored by Sarcoticks, and the Wound cured as aboveſaid; remembring that in theſe Contuſions Venaſection is moſt neceſſary. If the Wound be deep, and the Orifice narrow, yet capable of inlarging; it muſt be laid open proportionably, that the Matter may not be retained, and render the Wound more hollow. But if the *Sinus* be of any great length, and ſo depending that the Matter cannot diſcharge by the Wound; you may then make a Perforation in the lower part for diſcharge of it, by Knife or Cauſtick, or both, firſt Cauſtick, then Knife; or by a Seton-needle with a twiſted Silk or Thread, as hath been ſhewed in *Sinuous Ulcers*; and proceed accordingly.

What I have ſaid of Wounds cut and hackt in heat of Fight by a broad Sword, happeneth ſometimes in fighting or foyning with a Rapier. For if the Thruſt be redoubled, an Attrition may be made in the lower part of the Wound: and if there be ſuch an Attrition there, or if ſome tendonous body be there wounded, it will be too painful to heal by the firſt Intention; and if it run far, and deep amongſt the Muſcles, it may be a maiming of the perſon, or an indangering of his life, to cut ſuch a Wound open from top to bottom. Wherefore you ought to conſider well the manner of the Wound; and if it penetrate ſo deep, and be not capable of being laid open by reaſon of the thickneſs of it, make a ſearch with a Probe to the bottom, and feel how far diſtant it is there from the Skin: and if it do not lie far off, nor under any conſiderable Veſſel, the ſpeedieſt way of curing the Wound will be by paſſing in a Director, and cutting it open. Which done, keep it open, and permit the upper part to agglutinate. But if you think it not fit to open, yet mark the place, that in caſe there be a neceſſity of doing it afterwards, you may make the Apertion more certainly. That done, dreſs the Wound with a proportionable ſhort Tent armed with a Digeſtive *ex terebinth. cum vitell. ovi*; and embrocate the Parts about with *ol. roſ. myrtill. & aceto*; over which apply *empl. è bolo*, or ſuch like; and afterwards proceed as aforeſaid. For your farther information and more caution, I ſhall give you one Inſtance of the ill effects of cutting open ſuch Wounds the whole length.

Of a double wound by Puncture.

Some years ſince a young Gentleman was wounded in a Duel; the Rapier entred into his right Side ſlanting by his ſhort Ribs under the Muſcles, reaching within a finger's breadth of the Spine, with a redoubled Thruſt. He was carried to a *French* Chirurgeon's houſe, & dreſſed by him. The third day after I was fetchr, and ſaw the Wound inflamed and undigeſted, likewiſe the Orifice

fice over ſtretcht by the extraordinary bulk of the Tent. I adviſed the dreſſing it with one leſſer, and armed with a Digeſtive, alſo Embrocations, *&c.* as aboveſaid. But it was in vain. This Pretender dreſſed the Wound with a Tent proportionable to the former, anointed with ſome Unguent wherein was *ſang. dracon.* binding a Stupe over it. By this way of dreſſing the pain and inflammation increaſing, I was fetcht again two days after, and then made a ſearch; and feeling my Probe penetrating obliquely down deep amongſt the Muſcles, within a finger's breadth of the Spine, (as aboveſaid,) I concluded it beſt to make an Opening there. Accordingly I uſed a mild Cauſtick, then dreſſed up the Wound with a leſs Tent, ſpreading it with a Digeſtive *ex terebinth.* &c. embrocating it *cum ol. roſ.* &c. and ſoon after applied an anodyne Cataplaſm, and ſo left the Patient to reſt. But in the night, he turning in his bed, the Cataplaſm ſlid off, and our Monſieur diſcovered a diſcolouring in the Part, and ſuppoſing it an approach of a Gangrene, I was fetcht out of my bed. Upon ſight of it, I found it only ſtained with the Saffron and Lupins which were in the Cataplaſm, and applied it again, leaving the Patient better ſatisfied. But the next morning I met another Chirurgeon of the forementioned Monſieur's acquaintance. We took off Dreſſings, and ſaw the Wound digeſting. I propoſed the dividing the Eſcar below, to give vent that way to the Matter; but they were poſitive for the cutting open the Wound thwart all the Muſcles, the length of between 5 or 6 inches. To which purpoſe Sponges were preſt out of Melilot Emplaſter, and the Wound fill'd with them. The next day this latter Operator laid the Wound open with a pair of Sciſſors ſo far as his Sponges had dilated it, and dreſſed it up his way. The morning following the Wound appeared dry, and the Parts about inflamed and ſwelled very much, and continued exceeding painful to the third day. Then they, being at a loſs, were contented to divide the Eſcar; upon which there diſcharged a quantity of Matter made by Apoſtemation in that part: yet notwithſtanding they would not inlarge that Opening, but began where they ended, and cut open the Wound to the Aperture made by the Cauſtick, and dreſſed it up as formerly. Thus they having increaſed the pain, the Fluxion alſo increaſed, and a great quantity of Matter diſcharged from the lower part, alſo a large *Sinus* diſcovered it ſelf ſtretching over the Spine to the other Side. In order to the curing of this, they deſigned Injections; which I endeavoured to diſſwade them from: but they perſiſting in the uſe of them, I proteſted againſt their proceeding, and left them. They laught at me: but about the ninth day after the Patient died, and made good my prediction. For, alas! what elſe could be expected from ſuch a Diviſion of parts, and caſting in Injections, but to render it more ſinuous from Side to Side? whereas poſſibly by Digeſtion and good Compreſſion it might haply have healed.

The Fifth Intention is, in preventing of evil Accidents, and correcting ſuch as are already fallen upon the Part. And theſe are *Hæmorrhagia*, Pain, Fever, *Intemperies*, Convulſions, *Syncope*, *Delirium*, and Palſie. The fifth Intention, in preventing ill Accidents.

We ſhall begin with *Hæmorrhagia*, as being incident to all Wounds more or leſs, and ſometimes the cauſe of all other Accidents; wherefore I have treated purpoſely of the Wounds of *Veins and Arteries* in a Chapter by it ſelf; ſo intend here only to ſpeak of it as it is made by ſome Authors the ſecond Intention. The way to ſtop the Bleeding as it is common in all Wounds, is, by bringing the Lips of the Wound cloſe together by Suture, and by applying ſuch Medicaments to them as have a drying and agglutinative faculty; as *Galen*'s Powder of Aloes Pj. *thuris* Pij. and Hares-furre mixt with the White of an egg, applied upon a Pledgit, alſo a Plaiſter of the ſame Reſtrictives, with Compreſs and Bandage. But if the Wound be ſuch that you cannot bring the Of *Hæmorrhagia*, or Bleeding.

the Lips of it together, apply the aforesaid Powder upon Dossils on the bleeding Vessels, and your Astringents next, with Compress and Bandage over all: then place the Member in such a position as may be for the ease of the Patient.

Of Pain. You ought to be speedy in the mitigating Pain, for that nothing dispiriteth your Patient more, nor maketh more disturbance in Wounds, the Humours flowing abundantly to the pained Part, whence insueth great Inflammation and Tumour. Wherefore you must hasten to succour it by Anodynes; amongst which Phlebotomy is proposed by Authors in the first place, for that it maketh evacuation and derivation of the serous Humour which causeth the grievance. The external Applications proper to ease Pain are, *fol. & rad. althææ, malvæ, viol. hyoscyami, thapsi. barbat. flor. ros. cham. melilot. sem. lini, fænugræc. cydonior. psyllii, papaver. alb.* &c. which may serve for Fomentations and Cataplasms, being boiled in the Broth of a Sheep's head and feet, or new Milk. In the beginning of the Pain a Cataplasm may be applied of *far. hord. fabar. flor. ros. rubr. sambuci*, decocted in Red wine or Oxycrate, with an addition of *ol. ros.* &c. If the Parts be already inflamed, take *fol. hyoscyami* boiled in Milk, with White-bread crums, a new-laid Egg, a little Saffron and *ol. ros.* and make them into a Cataplasm. For more variety, I refer you to the Chapter of a *Phlegmon*, in *Tumours*. If after this it tend to Suppuration, you may proceed as in a *Phlegmon*. If it yield to none of these, you may truly conjecture some Nerve is offended: then proceed as is said in the *Wounds of the Nerves*. But if pain be caused by Matter that wants a passage out, give it one by Knife or Caustick.

Of distemper by Choler. If some hot distemper from Choler offends the Part, which may be perceived by what hath been said of an *Erysipelas*, then these Unguents, *nutritum, alb. camph. refrigerans Galeni, populeon*, are proper; or this following: ℞ *succi plantag. solani, semperviv. an.* ℥j. *bol. Armen.* ʒß. *lithargyr. loti, aq. plantag. & tutiæ præparatæ, an.* ℥j. *ol. ros. omphac. & nymph. an.* ℥ij. *aceti rosacei & ceræ tantillum; fiat Unguentum.* If the Distemper be œdematous, then Fomentations wherein *flor. cham. aneth. meliloti, sem. fænug.* and such like have been boiled, may, with good Bandage, serve your purpose.

Of Fever. Fever accompanies great Wounds; especially where there is Inflammation, it is almost inseparable; therefore you are the less to trouble your self thereat. But if it continues after the Pain and Inflammation is removed, and hath *Delirium* or *Syncope* with it, there is great cause to doubt the welfare of your Patient: therefore hasten Revulsion by Venæsection or Vesicatories, also use Clysters and lenient Purgatives, to loosen the body; and prescribe Juleps, Emulsions, Epithems, which, by refrigerating and contemperating the heat, may relieve the Patient. The other Symptoms of Gangrene, Convulsions and Palsies, are translated to the Discourse of *Gun-shot Wounds*.

CHAP.

Chap. II.

Of Wounds of the Veins and Arteries.

THE next thing that offers it self to our consideration is, the Wounds of particular Parts; and first of the Veins and Arteries, which are subject to great effusion of bloud, therefore require your speedy help. You may distinguish whether the bloud be from an Artery or a Vein, by the flowing of it, and by its colour.

Signs of the Artery wounded.

From the Artery the bloud rushes impetuously and *per saltum*, by reason of the dilatation and constriction of the Heart, and is of a florid colour. The Venal bloud flows with a more smooth and even stream; it is of a grosser consistence, and of a darkish colour.

Of the Vein wounded.

Prognostick of Vein, and Cure.

Of these latter Wounds there is no great danger; *Galen*'s Powder with the White of an egg, and the formerly proposed way of dressing, will stay their bleeding, and cure the Wound in few days. But those of the Arteries are most difficultly stopt, for that the bloud is in a most vigorous and strong motion.

Prognostick of Artery, and Cure.

Suture.

If these Wounds be not with loss of Substance or bruised Lips, you may bring the Lips and Mouths of the Arteries both together, and retain them by Suture, passing your Needle with a strong waxed Thread through both of them, making the Glovers Stitch, which *Guido* calls *Suppressio*. Then apply such like Emplastick as this; ℞ *bol. Armen.* ℥ij. *sang. dracon. thuris, aloes, glutin. sicc. an.* ℥j. *gypsi, farin. volatilis, an.* ℥ß. *hypocistid. acatiæ, sumach. an.* ℥iij. *Misc. cum album. ov.* to the consistence of Honey, and apply over it a Compress squeezed out of Oxycrate or Red wine; then rowl up the Member with the agglutinative Rowler, beginning on the opposite part, bringing both the heads over the Wound: and having taken a turn or two there, rowl upwards and downwards, so as to press the bloud upward, and restrain the Influx from above. Your Bandage must be so made, that it be to the ease of the Patient: the Position ought also to be such as may prevent Pain. He must keep cool and quiet, and observe a slender Diet. His Drink ought also to be cooling and astringent; as Fountain-water with *sal. prunell.* or *acetum*, or with gads of Steel quencht in it, and sweetned with Syrup of Coral, Pomegranates, Limons, *&c.* or this following Draught of *Quercetan*'s, ℞ *croci Martis, essentiæ corallor. an.* ℈j. *syr. de ros. sicc. & myrtill. an.* ℥j. *aq. papaver. rhœad.* ℥iv. *Misc.* so also a *decoct. hord. cum sem. papav. alb. & hyoscyam.* with an addition of Rose-water, and Sugar of Roses, to sweeten it; also a grain or two of *ladanum* in case of extremity, if the Patient bears it well. You may also let the Patient bloud, by opening a Vein on the contrary part, if his strength will permit it, taking a little at a time only for Revulsion. You may use also Cupping, Friction, and Binding the remote Parts, for Derivation.

Rowler.

Ordering the Part, and Diet.

Bleeding where.

In Wounds of the Artery, dress not oftener than you needs must; once in five or six days may be sufficient, whilst there is danger of Bleeding. But if you find the bloud hath made its way through all the Dressings, and the Bleeding continues, take them off: and if you discover the Stitches broken,

and the Lips of the Wound incapable of being ſtitched again; conſider whether the bleeding Artery may not be taken up and tied: if it may, do ſo. The way of doing it you may ſee in the Chapter of *Aneuriſma*, and in one of the following Obſervations. Then proceed in the Cure by Sarcoticks, *&c.* But if the Artery lieth ſo deep that you cannot poſſibly come to make Deligation on it, proceed by application of Eſcaroticks to the Veſſel, or by an actual Cautery.

Eſcaroticks. If by Eſcaroticks, then you ought to cleanſe the Wound of the clotted bloud, and dip your Doſſils in ſome ſuch like Powder; ℞ *thur. pulv.* ʒij. *aloes, glutinis ſicc. an.* ʒj. *chalcanth. uſt.* ʒij. *arſenici* ʒvj. *gypſi* ʒiij. Apply theſe with Lint on the bleeding Artery, and over it Doſſils of Lint dipt *in album. ovi cum pulv. Galeni*, and dreſs up the Wound as aforeſaid. At your next dreſſing, leave the Eſcarotick ſticking on the Artery, and incarn as faſt as you can. For want of the aboveſaid Powders, take Vitriol powdered and tied in a fine Rag, and apply it to the Artery with convenient Dreſſings over it, as beforeſaid.

Cautery. But if after theſe your Endeavours the Artery yet continue to bleed, you muſt uſe the actual Cautery; by which the Veſſel will ſhrink up at both ends. You may convey the Cautery down to the Artery through a *Cannula:* and that the Cautery may not burn through it, you may cover the outſide with a Plaiſter or Rag wet with the White of an egg, *&c.* That done, dreſs the cauterized part with Doſſils dipt in Mucilage of Quince-ſeeds, or with the White of an egg, and embrocate the Parts about *cum ol. roſ.* applying *emplaſtr. diachalcit. cum ſuccis plantag.* &c. over all. After you have allayed the heat of the Part, digeſt, incarn, and cicatrize the Wound as followeth.

1. Obſervat. of a wound of the internal Jugular. A Gentleman of about 35 years of age was wounded with a Rapier on the right ſide of the *Aſpera arteria* into the internal Jugular, through his Neck, it paſſing out below the laſt *Vertebra.* The Wound was ſmall, yet bled with a full ſtream. A Servant ſtopt it with his fingers, whilſt I made Dreſſings ready of our common aſtringent Powders, with the White of an egg and a little *acetum*, ſpred upon a Pledgit of Lint, and an Emplaſter of the ſame, with Compreſs and ſuch Bandage as it would bear. The Wound behind bled when that before was dreſt. I applied the ſaid Medicaments to that, and cauſed them to be held cloſe till they were dried on. Then we put him to bed, and kept him cool and quiet. I uſed all my endeavours for the contemperating his bloud, as is uſual in ſuch caſes, and dreſt him but once in four or five days, unleſs I were neceſſitated by the burſting forth of the bloud: yet he bled at times about 16 or 17 days. His Wound by the *Vertebra* of the Neck healed in few days; and the other near the *Aſpera arteria* was cured by this way of Agglutination the 19 or 20 day.

2. Obſervat. of an Artery wounded. A Man wounded in the Artery under the right Eye was immediately dreſt by Mr. *Fawcet* Chirurgeon; but the next day in the afternoon the bloud burſt out impetuouſly. The Wound had been made by the corner of a Trencher, and was not ſo big as a Silver-peny. I dreſt it with *pulv. Galeni*, and applied a Plaiſter over it made up with my common reſtrictive Powders *cum album. ovi*, with good Compreſs and Bandage. The next day his Wound bled again, and upon ſtopping thereof with my finger, the bloud was obſerved to beat all along the Artery, from the Aperture to the Temporal Muſcle, with a greater force than is commonly ſeen in an *Aneuriſma.* I pierced through both the Lips and Artery with a curved Needle, and by Deligation reſtrained the bleeding, then dreſſed it up with Emplaſticks as before, concluding I ſhould have very little more trouble from that Wound. But 2 or 3 days after it burſt

burst out again, and in my absence some other Chirurgeon was called in and dressed it. Afterwards, at another bleeding, Mr. *Fawcet* dresst him, and at another time Mr. *Arris*. The Wound being thus enlarged with the crowding in of Dossils, and lying in a very inconvenient place for Bandage, it bled often, and was dressed by such Chirurgeons as they could meet with in their necessity. By the frequent application of Escaroticks to stop the bleeding, his Eye was so much inflamed and corroded, that it was verily believed by us, that if he did recover of his Wound, yet that Eye would be lost. But his continual bleeding thus many days had so exhausted his Spirits, that there was small hopes of his surviving it. At the last bursting out of this Vessel, Mr. *Ed. Molins* deceased, Mr. *Fawcet* and my self met together at his Chamber. We found him lying as dead with his Hand out of the Bed upon his Breast. We endeavoured to feel his Pulse, but it not beating, we concluded him dead, and took the Dressings hastily off the Wound. It did not bleed, though it was open. We supposed the bloud exhausted. The Artery lay in the Wound torn by the Escaroticks. We took up the ends of it, and tied them, dressing the Wound with *liniment. Arcei* and a Plaister over it, not believing that the man would ever recover. But from that time the Bleeding of the Wound ceased, and it daily incarned by very common Remedies, and was soon healed, to my admiration. He was in less than a month perfectly cured both of his Wound and Eye. This Patient had been subject to the like Bleeding formerly upon very small Wounds.

3. Observat. of an Artery wounded.

A Butcher living at *Westminster* was wounded in the Artery between the Thumb and Fore-finger. After he had been dresst 3 or 4 days by some of his neighbouring Chirurgeons, the Wound continuing to bleed, he came to me late one night with Dossils crowded in it. I threw them out, and with a Needle and Thread stitcht up the Artery, and the Wound with it; then sprinkling some of my agglutinative Powders upon the Suture, I dressed it up with a restrictive Plaister and Bandage, as in the former Wounds is said: and in three or four times dressing he was cured. But afterwards there appearing some Pulsation extraordinary under the *Cicatrix*, which proceeded from the too lax Incarnation of the Wound, I dressed him with a Pledgit dipt in a dulcified Tincture of Vitriol, with good Compress and Bandage. At the next dressing it was dried and shrivell'd, so that there was no more Pulsation to be observed.

4. Observat. of an *Aneurisma* broken open.

One in the *New Exchange* had an *Aneurisma* in the Palm of his hand reaching to the third and fourth Fingers, which at last broke out, and bled at times the space of 8 or 10 days. I dressed him with the Tincture of Vitriol aforesaid once in 4 or 5 days, stopt the Bleeding, and cicatrized it firmly, so that there appeared not the least Pulsation under it.

5. Observat. of a wound of the Sural Artery.

A sedentary young Gentleman, of an ill Habit of body, was wounded by a Penknife in the inside of the Calf of his leg into the Sural Artery. A Chirurgeon dressed up the Wound with Dossils dipt in escarotical Powders, *chalcanthum ustum*, &c. with Plaister and Bandage, by which he stopt the Bleeding. The next day I was consulted, and being informed of the Wound, and the manner of dressing, I deferred the Opening it, and advised him to keep his Bed. He did so, but complained then of a throbbing pain in his Wound, and was very apprehensive of its bleeding, looking himself often upon the Bandage, and alarmed me by frequent messages. The third morning I met his Chirurgeon there, and looking upon his Leg, found the Bandage all bloudy. We took off the Dressings, and saw the bloud fresh in the Rowlers; but in taking off the Plaister, the Dossils came out only foul'd with a bloudy *Sanies*, as is usual in like Wounds after the filling them with such Powders.

The Wound and Parts about were inflamed and ſwelled; yet I had much ado to diſſwade the young Chiru geon from dreſſing it again with Eſcaroticks, though he ſaw the Accidents ariſing thereby. But at laſt I prevailed, and dreſſed the Wound with a Doſſil ſpred with the common Digeſtive *ex terebinth. cum vitell. ovi* ſprinkled with *pulv. Galeni*, embrocating the Parts about with *ol. roſ. cum aceto*, and applying *emplaſt. è bolo* over all with good Bandage. By this way of dreſſing he was eaſed, and the Wound at liberty to diſcharge the Sloughs and *Sanies* which were made, and choaked in by the former dreſſing. If it did not thus digeſt, yet I concluded that at the next dreſſing it would be in our power to lay open the Wound, and divide the Artery, without hurting the Nervous or Tendonous bodies near it. But the next day I found the Patient unſatisfied how his Wound could cure ſo dreſt, without a Tent, and often murmuring that it would rankle; yet he continued pretty eaſie, and did not bleed during thoſe three days. The fourth day at the opening we found no Bloud but what was mixed with Matter, the Wound alſo lookt well; yet I complied with the Patient, and put in a ſhort Tent ſpred with the Digeſtive as before. The third day after we opened it, and ſaw upon the Dreſſing ſome freſh Bloud followed by a thick white Matter, as from a *Phlegmon*. It proceeded from an Apoſtemation made by the Eſcaroticks. The Wound thus digeſting, I left off the uſe of the Tent, and dreſſed it with a Doſſil, and by good Embrocations, Compreſs and Bandage endeavoured the preſſing out of the Matter: which accordingly leſſened each dreſſing, but was not well digeſted, nor free from ſome ſmall tincture of Bloud. But this proceeded from his ill Habit of body, he being highly Scorbutical, and ſubject to Fainting, loſs of Appetite, and pituitous Swellings on his Feet. Upon which account Doctor *W.* was conſulted, and ſomewhat relieved him. After his Wound was cured, I cauſed a ſtreight pair of Stockings to be laced on both Legs, to reſtrain the Swelling, and prevailed with him to riſe daily: and after he was able to walk, he retired into the Country, but hath not yet got off the Diſeaſe he heightned by keeping within doors with this little Wound. Doubtleſs this Cure had been ſpeedier, if immediately at the firſt dreſſing his Leg had been bound up with Agglutinatives, and the whole committed to Nature.

6. Obſervat. of an Artery prickt in letting bloud.

A poor fellow living in the Country was accidentally in letting bloud prickt in an Artery. The Arm ſwelling and growing painful, he put himſelf into another Barber-Chirurgeon's hands, who by unfit Applications rarefied the Tumour, and made way to the Extravaſation of the bloud; which increaſing the Tumour, and rendring it ſoft, was ſuppoſed by the Barber to be a Suppuration of Matter. He accordingly opened it by Knife or Lancet: at which an impetuous Flux of bloud burſt forth, to the quantity of 4 flaggons, (as they told me.) They made a ſhift to ſtop it: but the Bandage being made too hard and unequal, the Arm ſwelled, and inclined to gangrene. While this poor man lay thus afflicted, we his *Majeſtie*'s & *Royal Highneſſe*'s Chirurgeons, attending the Court, viſited him, and prepared for the taking up this Artery, or, in caſe of failing, to cut off his Arm. The Patient being taken out of his Bed, and placed in a Chair towards the light, we took off the Dreſſings, and I viewed the Arm: where finding no Gangrene, according to the report of the Chirurgeon, but rather an *Ecchymoſis*, we made a Bandage above the Wound, to prohibit the Influx of bloud. One of the Chirurgeons making a gripe thereon, we made an Inciſion into the Tumour on the inſide of his Arm, according to the length of it, over the Artery; and after we had pulled out the coagulated bloud, and laid the Veſſel bare, we paſſed a Needle with a Ligature under the Artery, & tied it, then cut off the ends of it, and looſened the Bandage above: and ſeeing

it

it bleed no more, we dreſſed it up with Pledgits dipt in the common Digeſtive *ex terebinth. cum vitell. ovi*, applying them with *pulv. Galeni* next the Artery, and lightly filled up the Wound with Pledgits of the Digeſtive dipt in *ol roſ.* warm; then embrocated the Arm with ſome of the ſame Oil, and laid a *diachalcit.* Plaiſter over the Wound and Parts about, alſo applied *empl. Paracelſi* and *diachalcit.* over the Hand and Arm, which were œdematous. Then with Bandage we began at the Hand, and rowled up to the Wound, taking a turn or two over it, and ſo rowled up to the *Axilla*. He being returned again to his Bed, we placed his Hand upon his Breaſt, and felt his Pulſe beat ſtrongly in that Wriſt. At the next dreſſing we found the Tumour diſperſed, the Wound freſh, and tolerably digeſted. We then paſſed another Ligature upon the Artery above the firſt, and in pulling the firſt to divide the Artery between the Ligatures, the Artery broke; which was as well. We dreſt it up as before we had done, only leaving out the Powders. At the next Opening, finding the Wound in a very good condition, the Lips of it being digeſted and contracted, we dreſſed it up with *mundif. Paracelſi*, &c. Then ſeeing it in a hopeful way of Cure, I returned to *London*, leaving the Patient to my Fellows, who dreſt it ſucceſsfully the ſpace of 10 days without any appearance of bloud. In ſome of their abſence the Barber-Chirurgeon dreſſed the Patient. Whether it was in wiping off the Knot, or crowding in Doſſils, but it burſt out again: yet the Artery being divided, it ſoon ſtopt by the application of *Colcothar*, and from that time it bled no more. The ancient way of Deligation is, as I have already ſaid, by tying it in two diſtinct places, and cutting the Artery off between: but the Patient's often fainting interrupted us in that work. And truly in this caſe, where a Barber was to be intruſted with the Cure, it had been better that the Artery had not been divided; for then it would not have been in his power to have rubb'd off the Ligature, and before the Wound could have been ready to cicatrize, the Ligature would have fallen off of it ſelf, without danger of bleeding.

Chap. III.

Of Wounds of the Nerves, Tendons and Ligaments.

Wounds of the Nerves and Tendons.

NErves may be many ways wounded, *viz.* by Sciſſion, or Puncture. The former way they are uſually cut through, and then occaſion no new conſideration in Chirurgery, becauſe they wholly ceaſe from action, and are irrecoverable: but when prickt by a ſharp-pointed Weapon, which kind of Wound is called a Puncture, they are much to be regarded. So alſo Tendons: not the ſmall Fibres of them, (which are in every Wound of the Fleſhy parts,) but the main body of them, which uſually make up either the tail or head of a Muſcle. If you would know whether theſe are wounded or not, conſider the place wounded, *viz.* whether near the Joint in the inſide of the Arm

or

or Leg, or the end of the Muſcle, or in the Tendonous parts of the Hand and Foot.

Signs. The *Symptoms* are, great Pain and Inflammation, alſo a contraction & hardneſs in the Nerve or Tendon. But if the Nerve be quite divided, the pain is little, only a kind of *Stupor* or Nummedneſs. According as the Nerve is more or leſs conſiderable, ſo alſo the particular Part is lame more or leſs.

Ill conſequences of bleeding not always from a prick of a Nerve or Tendon. The moſt frequent Wounds of Nerves, and moſt to be taken care of in Chirurgery, being Punctures, I ſhall inſtance in them, and chuſe the moſt common, *viz.* thoſe which are made accidentally by letting bloud. And here by the way you muſt take notice, that, in letting bloud, ſometimes the Aperture happens to be made, when the Skin, by reaſon of the Bandage, or Poſition of the Arm, lies equal with the Vein, yet afterwards is not ſo; or the Apertion is made too ſmall in the Skin, ſo that part of the bloud is choakt in, and lies there extravaſated, whence a ſmall *Phlegmon* ariſeth: or it may happen in ſome that are well let bloud, that yet through the indiſpoſition or ill Habit of body, the Part prickt feſters, (as they uſually ſay,) and groweth ſoar a day or two after, and, if neglected, may raiſe a Tumour, which lying upon the Nerve or Tendon, may at that time contract the Arm. If a Boil in a Fleſhy part be painful, then much more theſe in the Joynts amongſt the Nerves and Tendons. Such Accidents have and will happen to all that let bloud, whether Phyſicians or Chirurgeons: which is the reaſon that ſome of our old experienced Chirurgeons did, after letting bloud, always apply a Pledgit of *baſilicon* upon the Aperture, with *emplaſtr. diachalcith.* over it, which by its digeſtive quality ſecured it from corrupting. But we by a contrary way, as by a little Compreſs dipt in Water, endeavour to reſtrain the flowing of the hot *Serum* to the Aperture; and we ſhould be laught at if we continued that old method of Dreſſing. At the time we let people bloud, they are commonly labouring under ſome great Fermentation, or apprehend it ſo: no wonder then if it ſometimes fall upon the Part, where it was invited by Bandage. I have been ſent for into the Country to a perſon, that, after a letting bloud, was ſeized with an *Eryſipelas* or bilious Inflammation the whole length of the Arm. The Aperture in the Vein might poſſibly be the cauſe; but that place was not afflicted at all. Dr. *Ringal* complained once of a Chirurgeon, who was ſo unconſcionable, as he ſaid, to ask five pounds for curing an Arm he had made ſoar by his letting bloud. But I hope no perſon is ſo ignorant or malicious, to impute ſuch Accidents to a Puncture of the Nerve or Tendon.

For when they are really prickt, their Symptoms (as you may read in all thoſe that have writ of them) are ſudden, with vehement Pain, Faintings, Convulſions, and attended with great Defluxions. They do not terminate preſently in Suppuration, but gleet, and will not yield to a ſimple anodyne Cataplaſm of White-bread and Milk.

Prognoſtick. All Wounds of the Nerves and Tendons are dangerous, but more or leſs according as they are of uſe. Thoſe of the Nerves are attended with the ſevereſt Symptoms, and ſeize the Patient more ſuddenly. But whether it be Nerve or Tendon, the tranſverſe Wound is moſt dangerous, and difficult of Cure.

Cure. In order to their *Cure*, there are other conſiderations required; and in the firſt place, whether the Nerve or Tendon lie open in view, or under coverture of the Skin. If they lie covered under the Skin or *Membrana adipoſa*, then you ought to open the Skin, that the Medicaments may penetrate to the wounded Nerve or Tendon. Your Medicaments proper in theſe Grievances ought to be ſuch as are of hot, dry and ſubtil parts, to conſume that Ichorous water which firſt affects them, and cauſeth the Putrefaction. In the beginning

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uſe *ol. roſ.* with a little Bay-ſalt diſſolved and dropt into the Part ſcalding hot; upon which may be applied a Pledgit ſpred with *baſilicon* dipt in the ſame Oil, and the Part embrocated about *cum ol. lumbric.* and *emplaſt. è bolo* over it as a Defenſative. But if the Inflammation and Tumour be great, apply this Cataplaſm: ℞ *farinæ hord. & fabar. an.* ℥iv. *ſem. lini & fœnugræci pulv. an.* ℥j. *flor. roſ. rub. flor. cham. ſambuci, & ſummit. abſinth. an.* ℥iij. boil theſe in Wine, or in the common *Lixivium*, adding *oxymell.* ℥iij. *ol. roſ.* ℥j. *Miſc.* ſo roul up the Part gently. If there be much pain, dreſs it twice a day. If the Part requires Medicaments of more drying and ſubtil parts, dreſs with *balſam. ſulphuris terebinth.* or elſe, ℞ *ol. ſabinæ & terebinth. an.* ℥ij. *Miſc.* or *oleum coſtinum, rutæ, ſabinæ, aneth. ſcorpion.* &c. Theſe are all proper Medicaments to dreſs them with; but *ol. roſ.* and Salt have alway ſerved my purpoſe.

In your application of Medicaments you muſt conſider what degree of heat and ſiccity is proper for the offended Nerve or Tendon. If in your uſe of theſe Medicaments your Patient feels not the heat of them, or feels it vehemently, they are not then rightly fitted: for in the former caſe they do not enough dry that *Sanies*; in the latter they do inflame the Part. If the Patient feel the heat moderately, the Medicine is good: but if from the uſe of the Medicine the Part itch and ſmart, and the Aperture made by Puncture gape, then the Medicament is ſtronger than it ſhould be. If the hardneſs go off with the contraction, and the Lips of the Wound relax, 'tis a good ſign. I ſhall give you one Obſervation for the farther confirmation. Caution.

A young Chirurgeon having accidentally prickt a Tendon in letting a Maid bloud in the *Saphena* near the Ancle, he dreſt it up with *ol. terebinth.* hot. Her pain increaſing, I was conſulted, and ſaw the Chirurgeon ready to apply his hot Oils: but upon ſight of the Wound, the Lips being turgid and dry, alſo the Parts about inflamed, I ſhewed him his error, and prevailed with him to dreſs it with *unguent. baſilic.* warm, and to embrocate *cum ol. roſ.* alſo to apply *empl. diapalm.* malaxed with ſome of the ſame Oil, and to forbear dreſſing it 2 or 3 days: during which ſhe was cured. The over-uſing hot Oils hath been in theſe caſes very miſchievous to many. Obſervat. of a Tendon prickt.

If they yield not to Cure by ſuch Medicaments as have been propoſed, then you ought to divide them, to prevent worſe Accidents, *viz.* Convulſions, Spaſma's, Gangrene, *&c.* After which they cure as other Wounds; only require more care in the poſition, and keeping the Member ſteady, if it be in ſuch a Joynt where there are Nerves and Tendons that move contrariwiſe.

The Ligaments require much one method with the Tendons; only your Medicaments are here to be more drying, as *euphorbium, ſulphur. viv. calx lota, tutia*, &c. Cure of Ligaments wounded the ſame with Tendons.

A Youth about ten years of age, one day in the Seſſions-yard leaning over the ſpiked Pales to ſee the Malefactors, was ſuddenly frighted down by the Marſhall's men: in his falling he was catcht by one of thoſe Spikes in the middle of his Wriſt, it paſſing between the Bone and Tendons: he hung thereby till he was taken down. They carried him home, and fetcht me. I found the Tendons ſtretcht out to a great length, ſome of them broken and torn in pieces, and one of the Bones of the *Carpus* lying looſe in the Wound; which I took out, and cleanſing the Wound, placed the ſhattered and over-ſtretcht Tendons within it, and made my firſt Stitch in the middle, bringing the Lips as cloſe together as I could. Then I made two Stitches more, on each ſide one, dreſſing him up with a Digeſtive *ex terebinth.* &c. dipt in this following Balſam; ℞ *terebinth.* ℔ij. *olei olivar.* ℔iij. *ol. laurini* ℥iv. 1. Obſervat. of a wound in the inſide of the Wriſt.

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cinnamom. ℥iij. *euphorbii, garyophyll. baccar. juniper. an.* ℥j. *gumm. hederæ, ſagapeni, ammoniaci, opopanacis, galbani, an.* ℥ij ß. *myrrhæ, maſtich. colophoniæ pulv. an.* ℥iij. *diſtillentur pro uſu.* Over this I applied *empl. è bolo*, with a Compreſs dipt in Oxycrate, and ſo rowled up the Member. Some hours after I let him bloud, and gave him that night a Draught of *aq. paralyſeos* with *ſyr. de meconio & aq. cardiac. cochl.* iij. He reſted ill that night, and in the morning was full of pain. I took off the Bandage, and bathed the affected Member with *decoct. rad. althææ, malvar. violar. cham. verbaſc. hyoſcyam.* and applied a Cataplaſm over the Dreſſings of *farin. hord. fabar. flor. roſ. rub. balauſt.* decocted in Oxymel, with the addition of *ol. lumbric. & roſar.* The next day his pain was much mitigated, the Tendons all drawn up, and the Stitches looſe. I thought to have drawn the Lips cloſe, but found them too painful to admit of it; therefore I cut the Stitches out, and brought them as cloſe as they eaſily would come, dreſſing up the Wound as before. After ſome few days, the Wound being tolerably digeſted, I dreſt it with Unguent dipt in the former Balſam, and applied over the Wound *empl. diaſulphuris Rulandii*, with Bandage and Compreſs as before. ℞ *terebinth. reſinæ pin. ol. hyperici, an.* ℥iv. *ſarcocollæ, myrrhæ, thuris, an.* ℥iij. *ceræ q. ſ. fiat Unguentum S. A.* Thus I happily deterged and incarned, and by *unguent. tutiæ* and my ordinary Epuloticks cicatrized the Wound; and ſome while after he recovered the uſe of his Hand.

2. Obſervat. of a wound on the inſide of the Wriſt into the joynt.

A Coachman was wounded tranſverſe the back of his Wriſt, deep into the Joynt, ſo that his Hand doubled inward. I cauſed a *Ferula* to be placed under his Hand to ſupport it; then ſearching the Wound, pull'd out many fragments of Bones: and having cleanſed it, I brought the Lips together by three diſtinct Stitches, leaving a vent for Matter in the ends of the Wound, which were both depending. Then I ſprinkled the Powders of Myrrh, Aloes, *Thus*, &c. upon the Suture, and applied a Digeſtive *ex terebinth. cum vitello ovi* on the reſt of the Wound, with a Defenſative over all, and rowl'd it up. Then I let him bloud, and preſcribed him ℥vj. *ſyr. de meconio* in a draught of Mace-ale for his Supper, with hopes to diſpoſe him to reſt. But he ſlept little that night. The ſecond day after I took off Dreſſings, and fomented the Wound and Parts about with an emollient Decoction, as in the former Chapter, and dreſt up his Wound with Digeſtives as before, embrocating the Parts about with *ol. lumbric.* and applying *empl. è bolo* over the Wound and adjacent Parts. It digeſted in the declining ends a little, but continued painful, eſpecially in the Fingers. The third day after, dreſſing him again, and ſeeing the Wound digeſted, I took out the Stitches, and dreſt the Wound with my Digeſtive of *terebinth.* dipt in my formerly mentioned Balſam, applying a Cataplaſm warm over all the Wound and Hand, as in the former Obſervation hath been ſet down; then rowl'd up the Member again. At the next dreſſing there appeared more Inflammation; yet the Wound was not altogether well digeſted, nor did the ſtitcht Lips ſeem to incarn, but thruſt forth a ſoft white Fleſh: wherefore I cut the Stitches, and digeſted with *Merc. præcipitat.* and laid Pledgits ſpred with *mundif. ex apio*, with a Cataplaſm as before over all. Thus I deterged, and afterwards incarned with the common Sarcotick, and with *calx lota* cicatrized it. Then I put on a Catagmatick Emplaſter, and by the uſe of a laced Glove ſcattered the pituitous Swelling, and ſtrengthened it. Yet it continued long painful, and ſo extreamly weak, that he was neceſſitated to ſupport it a long time by wearing the *Ferula*. Since the writing of this, I am informed he continues in the ſame Service; his Wriſt is ſtiff, but ſerves him to drive his Coach.

3. Obſervat. of a Finger bit off by a horſe.

A Gentleman aged 54 years, of an ill Habit of body, paſſing in the Street by

by a Coach, one of the Horſes ſnapt off the end of his Finger with the Glove. I dreſt the Stump with the common Digeſtive dipt in a little *ol. roſ.* warm, and with *emplaſt. diachalcith.* malaxed with a little of the ſame Oil, and rowled up the Stump. This Patient kept not his houſe with this little hurt, but came to me to be dreſt once in two or three days, or dreſt himſelf; he not thinking it worth the obſervation of Diet, Bleeding, or the like. One day he came to me complaining that his Finger would not heal. I looked upon it, and ſeeing an undigeſted crude *Ichor* dropping from it, and the Parts about bliſtered, I ſcarified them, and dabbled the Wound with *ol. terebinth.* warm, ſtrewing *Merc. præcipitat.* over all, and dreſſing it up with Pledgits dipt in *baſilic.* &c. then rowling it up with *empl. diachalcith.* That night I went to his Lodging with a Fomentation and other Medicaments prepared for a Mortification, but found it checkt; ſo I continued the application of *unguent. baſilic.* and *ol. terebinth.* and afterward let him bloud, and purged him with *infuſ. ſenæ,* &c. After the Wound was well digeſted, I incarned and cicatrized the Stump by ſuch Medicaments as in the former Obſervation have been ſet down. Thus ſometimes great miſchiefs attend little Wounds, through the contempt ſome of our Patients have of them.

Chap. IV.

Of Wounds of the Face.

A Lady was wounded down the whole length of the Forehead to the Noſe, alſo tranſverſe the left Eye-brow to the Temporal Muſcle; her Eye and Face were alſo much bruiſed. It happened to her travelling in a Hackney-Coach, upon the jetting whereof ſhe was thrown out of the hinder Seat againſt a Bar of Iron in the forepart of the Coach. At the firſt ſight of the Wound in her Forehead, ſeeing the Bone bare and her ſelf ſo diſturbed, I doubted whether I ſhould ſtitch it, or keep it open with Doſſils: but ſeeing no Fiſſure or inequality in the Bone, and conſidering the Deformity in that place would be great, I brought the Lips of the Wound cloſe together with one Stitch, and dreſſed it with Sarcoticks, reſolving, if any Symptom prognoſticated ill, to cut the Stitch, and lay it open again; but if there were none, then at the next dreſſing to bring the Lips of the Wound nearer by dry Stitches. On the Eye brow I made four Stitches, at ſuch diſtance as they might be able to retain the Lips together, taking in a triangular piece of Skin that was divided by a Wound above it, which rendred it not unlike a double Hair-lip. Then I dreſſed up the Wounds with *Arceus*'s Liniment and *empl. è bolo,* with a Compreſs dipt in Oxycrate, and made my Bandage over all. Having thus dreſt her Wounds, I cauſed ſome *aq. roſ. rub. cum alb. ovi* to be beaten together, and dropt in her Eye; then applied ſoft folds of Linen wet in the ſame Mixture over that diſeaſed Eye, and an *empl. è bolo* over her Cheek, forbearing the Bleeding her that night, in conſideration that ſhe had bled the ſpace of five miles in her returning back to *London.* The ſecond day after I took off the Dreſſings, and finding

1. Obſervat. of wounds in the Forehead and Eye-brow.

ding leſs ſuſpicion of Fracture or Fiſſure in the Wound of her Forehead, I brought the Lips of that Wound together with dry Stitches, and ſtrengthened thoſe Sutures of the Eye-brow by the ſame Medicament, leſt the continual motion of the Lid ſhould relax them: then I dreſt it up as before, and made the Bandage begin behind, bringing both the heads of the Rowler forward, paſſing one by another, to preſs the Lips of the Wound in the Forehead cloſe together, and dreſt her Eye with *aq. pomor. matur.* wherein a few grains of Vitriol were diſſolved; by which I removed the Suffuſion upon the *Cornea*. Then I applied upon her bruiſed Cheek Pulp of the Roots of Orpin beaten in a Mortar, with the White of an egg. Two days after I dreſt her again, and finding that the dry Stitches kept thoſe Lips of the Wound cloſe together, I cut off the other, and dreſt her with ſarcotick Powders, which ſupplied the place of Epuloticks; and that morning I let her bloud in the Arm about ten ounces, and purged her the day after with *infuſ. ſenæ, rhab.* &c. By this the Defluxion was removed, and in the ſpace of ſeven days the Wounds were all perfectly cured, and ſhe returned back the eighth day.

2. Obſervat. of a wound in the right Cheek.

A Servant of a Nobleman was wounded on the right Cheek over the *Os zygoma*, down the Muſcles of the ſame Cheek. In cleanſing of the Wound, I felt a piece of that Bone, which had been cut off by a ſlanting blow: it hung only by ſome fleſhy Fibres in the Wound. I took it out, and, in conſideration the Part would not well admit of Bandage, I made two Stitches, bringing the Lips of the Wound even together, then ſprinkled the Suture with ſarcotick Powders, and dreſt it up as the former. The third day after, taking off Dreſſings, and finding his Wound agglutinated, I cut out the Stitches, and dreſt him with ſome of the ſame Agglutinatives as before. Two days after, dreſſing him again, I found his Wound perfectly cured.

Whilſt I ſerved amongſt the *Dunkerkers*, where *Snick and Snee* was as it were a faſhion, I had much of this ſort of work; and for your diverſion ſhall ſet you down one Inſtance in that kind.

3. Obſervat. of a *Dutch Hamburger* markt with a croſs on the right Cheek.

Whilſt our Squadron rode at Anchor in the *Groin*, there came in ſome *Hollanders*, under the notion of *Hamburgers*, with three Ships new trimm'd up for the King of *Spain*'s Service. A Boatſwain of one of theſe Ships happened in company aſhoar with ſome of our men, where drinking together, the *Hollander* began to prate of Religion, upbraiding one of our men for wearing a Croſs; and after a while, growing more heated with drink, he became quarrelſome, and ſwore *Sacrament* he would not wear a Croſs, no, the Devil take him, repeating it often. One of our men beat him down, and fell with him; then kneeling upon his Breaſt, and holding his Head down, he drew out a Knife ſticking in his Saſh, & cut him from the Ear towards the Mouth, then from the *Os zygoma* to the neather Jaw. *Now*, ſaid he, *you ſhall wear a Croſs, that the Devil do not carry you away*. I was ſent for from the next houſe as a friend to that Religion, and ſtitcht the Lips of the Wound cloſe together; then ſprinkling them with a little *pulv. Galeni*, applied Pledgits with a ſarcotick Unguent, and with Aſtringents and Bandage dreſſed him up. The next morning he was let bloud, and the third day after I took off the Dreſſings, and finding the Wound as it were agglutinated in the Slits, I cut out ſome of the Stitches, ſprinkled the Wound as at firſt, & dreſt him up with Sarcoticks, with Compreſs and Bandage. The ſecond day after I dreſt him again, and cut out the remaining Stitches; and in a dreſſing or two more cured him. This being the work of Nature, who rarely faileth in acting her part, if we perform ours, in retaining the Lips cloſe together, and defending them from Fluxion. The Patient was well pleaſed with his Cure, though there remained ſome marks of a Croſs. Theſe ſort of people wearing them with much pride in their Faces, as marks of their Courage.

CHAP.

Chap. V.

Of Wounds penetrating the Oesophagus *and* Aspera arteria.

WOunds penetrating the *Oesophagus* and *Aspera arteria* require to be ſtitched cloſe, eſpecially thoſe of the *Oesophagus*, where the ſuſtenance and *Saliva* ſo continually preſſeth into it. Therefore if your Stitches ſlacken before the internal Wound be agglutinated, you ought to make new Stitches, or paſs Needles or Pins through the Lips of the Wound, and with ſtrong Thread twiſted about them, as in a Hair-lip, keep them cloſe together, till the Wound be united. During which, dreſs it up with Agglutinatives, and preſcribe a thin Diet: ſo ſhall you cure the Wound in few days, whenas otherwiſe obſerve what followeth.

Obſervat. of a wound in the Gullet.

A Child of about ſix years of age, playing with a wooden Dagger, fell upon it, and wounded himſelf into the *Oesophagus* or Gullet, ſo as his *Saliva* froathed out of the Wound, I being fetched, ſtitched up the Wound, and applied Aſtringents, with Compreſs and retentive Bandage, then put him into bed, and let him bloud in the Arm, adviſing a Lambative of *album. ovor. rec. cum ſacchar. alb.* to be taken as neceſſity ſhould require, with directions to abſtain from all other Suſtenance till the next morning. At which time viſiting him again, I was told their Chirurgeon had taken off my Dreſſings, cut off the Stitches, and given a greater liberty in Diet. I wondered what peculiar Art he had in curing that Wound. But about a month after I was informed, he had been foiled in the Cure, and had left it to Nature; and that the Child was fed with Pudding, and ſuch ſoft Food, part whereof came daily out at his Wound.

Chap. VI.

Of Wounds of the Lims.

1. Obſervat. of a puncture of the Arm.

ONE of our Mariners in *Spain*, fighting on ſhoar, was thruſt with a Rapier into the outſide of the Arm nigh the *Biceps*. A Chirurgeon in the Town, ſeeing him bleed much, ſtitcht the Wound cloſe, and applied his Reſtrictives, rowling up the Part well. After three or four days, the Patient came aboard, and, being in pain, deſired me to dreſs him. The Arm being ſwelled and inflamed, I cut the Stitches open, and gave vent to a bloudy *Sanies*, after which followed a digeſted Matter. Finding by ſearch with my Probe the Wound wanted little of paſſing through, I embrocated & dreſt it up with a ſhort Tent armed with my common Digeſtive, and endeavoured by good Bandage to cure it. But it not yielding thereto, I paſſed a Seton-needle through, diſcharging the Matter downward; and after that Apertion was digeſted, I dilated it, and kept a Tent there a few days; during which the upper part of the Wound healed up: and the Wound below digeſting well, and the Matter daily leſſening, I alſo healed that up. This I inſert, to ſhew you that ſuch Wounds ought not to be ſtitcht, but dreſt up with Aſtringents, Compreſs and Bandage: for ſo theſe Wounds in a good Habit of body, with Compreſs and Bandage, do frequently agglutinate in a few days; whereas dreſt by Tents they are of longer continuance, and rendered at laſt difficult of Cure.

2. Obſervat. of a wound in the Thigh.

While I was in the *King*'s Service in the time of the War in the Weſt-country, I was fetched to Captain *M.* who in fighting a Duel was run through the Thigh with a broad Sword: I was alſo ſent for at the ſame time to the other. I haſtily dreſt this Officer's Thigh with Pledgits ſpred with Sarcoticks, and ſome aſtringent Powders mixt with the Whites of eggs, applying them over both the Orifices, and bringing the Lips of them cloſe, with Compreſs and Bandage, and ſo left him to be by his Servants put to bed. From thence I went to dreſs the other, who had many little Wounds, on his Fingers, Hands, and Head. At my return I viſited my former Patient, whom I found in his bed with little pain. The ſecond day after I attended him, and finding all in good temper, without pain or ſwelling, I dreſt the Wounds as I had done before, there being good ſigns that they would heal up by Agglutination; for there was little either of Matter, Pain, or Swelling. If it had appeared inflamed with Tumour or Pain, I ought then to have dilated the Orifice moſt diſtempered; and if they had both ſuffered, I might have kept them both open with ſmall ſhort Tents ſpred with the common Digeſtives, and have let him bloud, and proceeded as in a Body ill habited: but there was no need; there only required a quiet poſition of the Part, which he ſubmitted to, and was happily cured in 7 or 8 days. This was really performed by the Balſam of his bloud, I neither bleeding nor purging him in the time of his Cure.

3. Obſervat. of a wound in the Thigh.

A fat Gentleman came from *Rocheſter* wounded in the Thigh with a Tuck. It was much inflamed, by reaſon of the Tent in it, which was very long; his young Chirurgeon ſuppoſing the Wound could not be cured unleſs the Tent reached to the bottom of it. I threw out the Tent, and dreſſed the Wound with

with a Pledgit of *unguent. basilic.* embrocated it with *ol. ros.* and applied *empl. è bolo,* then let him bloud. He being feverish, I also prescribed a Clyster, and sent him an Anodyne draught to dispose him to rest that night. The next day I found him in good temper, and his Wound inclined to heal. I dressed it as the day before, and advised him to keep his bed three or four days. About two days after I visited him again, and taking off the Dressings, saw his Wound perfectly cured: so it continued, and he walked abroad the next day.

4. Observat. of a wound in the Arm.

A person was wounded in the inside of the Arm, the Sword passing over the Joynt slanting to the outside of the Arm. He was first drest by a Chirurgeon near the place where he was hurt, and had bled much. The next day he complaining of pain, I opened the Wound, and found it tented at both Orifices, the Arm swelled, and a little disturbed; as Wounds in that place are subject to be, when the bloud is shut in by Tents, and not drest rationally by Astringents and good Bandage. The Swelling was most between the two Orifices, & appeared afterwards to be the bloud choaked in by the streightness of the Bandage, and was not likely to yield otherwise than by Suppuration. I fomented the wounded Member with Discutients, and kept both the Orifices open with small Tents dipt in the common Digestive, embrocating the Parts about *cum ol. ros. & gutt. aliquot aceti,* and applying over all *empl. è bolo.* The third dressing there appeared bloud from that Orifice in the inside of the Arm. I filled it with Præcipitate upon a Dossil, and drest the Wounds up as before; then acquainted the Patient with my thoughts of Opening the Swelling between the two Orifices, there being no likelihood the Matter could discharge it self by either of them, yet it was not safe to heal them up. Wherefore I opened that Tumour lying between them by a little Caustick, and discharged a grumous bloud with a corrupt *Serum.* From that time I left off the use of Tents, and healed that Wound up in four or five days: and as the Escar separated, the Ulcer digested, and I cured that latter Opening soon after. That the Bone was bare under the Tumour, may I suppose yet be felt, from the adhesion of the musculous Flesh to it.

5. Observat. of a wound in the Leg.

A person was wounded in the outside of the right Leg below the Gartering-place, the Wound running upward. After 6 weeks dressing by the neighbouring Chirurgeons, the Wound being much disturbed by a Flux of Humours, I was consulted, and found it sinuous (some two inches) upward, and accompanied with Inflammation and Tumour. The Small of the Leg and Foot were œdematous, and the whole Member so weakned by the Influx, that it was neither able to assimilate its Aliment, nor yet to resist the Crudities that fell upon it, and so was like to be of difficult Cure. In order to which I laid open part of the *Sinus* by Incision, and deterged the Wound with *mundif. Paracels.* mixt with *Merc. præcipitat.* embrocating the Parts about with *ol. ros. cum aceto,* and applying *cerat. Galeni* over the inflamed Tumour. I fomented the œdematous Tumour with a Decoction of *absinth. scord. flor. sambuci, cham. ros. rubr. bacc. myrtill. & balaust.* and applied over the Swelling a Mixture of *empl. diachalcit. & stict. Paracelsi,* with good Bandage, not renewing those Dressings more than once a week, to give a breathing to it. By the aforesaid method of dressing, that part of the Wound which I had laid open deterged, and the Inflammation and Tumour remitted. I afterwards divided the remaining *Sinus,* and deterged it as the former, and with *unguent. diapompholyg.* &c. cicatrized it, by the help of a laced Stocking, in the space of about a month. This person had been long kept in his Chamber by his Wound, and now supposing himself well, he rid to his Country-house, (unknown to me:) but that night his Leg swelled much, and the *Cicatrix,* being scarce confirmed, brake out again;

again; upon ſight whereof he returned back the next day, and ſent for me. His Leg being inflamed, and the *Cicatrix* fretted quite off, I fomented the Member *cum decoct. malvar. violar. plantag. ſolani, & flor. roſ. rub.* and endeavoured by the application of *baſilicon*, &c. to digeſt it: but it not yielding thereto, I applied Refrigerants on the external Parts, and a fine Lawn wet in a Solution of *troch. alb. Rhaſ.* made in *decoct. plantag. equiſeti*, &c. over the Excoriation, alſo *unguent. alb. camph.* over the Lawn, upon Pledgits ſomewhat diſtant from one another, leſt the Matter ſhould be ſhut in by the adheſion of them, and fret the *Cuticula* more off. Thus I dreſſed it twice a day, he keeping his Leg upon his bed, to prevent Defluxion. By this method the heat and acrimony of the Humour being mitigated, I applied over the Lawn Epuloticks more drying, *viz. pulv. corn. cerv. uſti*, &c. and at laſt with much difficulty cicatrized the Ulceration: whereas if this Wound had been treated methodically in its recency, it might poſſibly have been cured in few days by Agglutination.

Chap. VII.

Of Wounds of the Breaſt.

WOunds of the Breaſt are penetrating, or not. If they do penetrate, then we are to conſider the depth; whether it be only between the *Mediaſtinum*, in the hollow Cavity of that, in the lower part of the Breaſt; or whether it penetrate into the Cavities of the *Thorax*; or what the Parts are that be hurt. How the Breaſt is circumſcribed, with the Symptoms of each Part when hurt, you may find in the following Diſcourſe of *Gun-ſhot*.

Signs of penetrating wounds.

The *Signs* of Wounds penetrating are diſcovered by the proportion of the Searching-candle or Probe, which enters into the Cavity. You may alſo perceive when it penetrates the Cavities of the *Thorax*, by laying a Down-feather upon the Wound, or by holding a lighted Candle near it, the Patient holding his breath the whilſt. In this caſe the Wind (or Air) will move the Feather or Flame; if it do not blow away the one, and extinguiſh the other. The Air alſo makes a noiſe in its paſſing forth. Sometimes it is diſcovered by the quantity of bloud diſcharged by the Wound or Mouth, or both, with Difficulty of breathing.

Prognoſtick.

Wounds in the hinder part of the *Thorax* are reckoned dangerous, by reaſon of the Nerves and Tendons; and if they penetrate that way, there is another danger from the great Veſſels of bloud, which are nearer to the Weapon in this caſe than in thoſe Wounds which are made forward: yet all Wounds in the Breaſt are dangerous, by reaſon of the continual motion of the Lungs, and of the bloud that falls down on the *Diaphragma*, and corrupts it. If the Lungs be wounded deep amongſt the great Veſſels, though they eſcape the firſt nine days, yet they commonly terminate in a *Phthiſis*, or *Fiſtula*.

Cure.

A Wound in the external part of the Breaſt is cured as a Simple Wound. If it penetrate, you are to endeavour firſt the reſtraining the bloud; then that the extravaſated bloud be diſcharged: and that either by the Mouth, by Expectoration; or by the Wound; or by Urine. The way by Urine *Fabr.*

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ab Aquapend. says is by a branch of the *Azygos*, which, saith he, passeth near the *Diaphragma*, by the Spine, to the Emulgents. Those that own the Circulation will hardly allow of his *Hypothesis:* however, if the matter of fact be true, that there is sometimes a discharge by Urine, which I confess I have not yet observed in my own practice, it will be reasonable to propose, as he doth, in this case, Diureticks, as *decoct. capill. Veneris, polytrich. rad. petroselin. beton. apii, fœniculi, asparagi*; also Ptisans, with *ol. sulphur. vitriol.* Barlycream, Emulsions, *&c.* to contemperate the bloud. The Ancients gave *acetum* with warm Water to restrain the present Flux, and to dissolve the concreted bloud.

The second way is by Expectoration; and thereto serve *decoct. pectorale*, Lohochs, *syr. capill. Ven. jujub. glycyrrhiz. oxymel*, &c. whereof the *Pharmacopœia Lond.* is full. This I have mentioned for their sakes who cannot have a Physician. But here I leave this work to them, those Cures consisting much in their well ordering and prescribing internal Remedies; contenting my self in the Dressing of the Wound as it appertains to Chirurgery. In the treating of which there is a Question, whether the Wound should be kept open, or agglutinated. They that are for a speedy Agglutination, do urge it, lest the internal Air corrupt the Parts within, and the heat expire. They that propose the keeping them open, do design thereby a readier discharge of Matter. For, saith *Aquapendent.* if the Matter be to be discharged by Urine, it must pass into the substance of the *Pleura*, then into the Vein *Azygos*, so into the Emulgents, then to the Kidneys, and through the Ureters and Bladder: if by Expectoration, then it must also first pass into the substance of the Lungs, then into the *Aspera arteria* or Weasand, and from thence be coughed up, and spit out by the Mouth.

Whether the wound is to be kept open, or not.

In my practice, in these Wounds of the Breast, I consider the Wound, how it is capable of discharging the extravasated Bloud and Matter. If it be inflicted so, that the Bloud or Matter may be thereby discharged, then it is to be kept open, the welfare of the Patient depending mainly upon the well dressing and governing it: but if it do not lie well for Evacuation of that extravasated Bloud, then it may do hurt, and so ought to be healed up.

The Author's judgment.

A Person of about 23 years of age, of a good Habit of body, being wounded into the Breast, there followed immediately a great effusion of Bloud, almost to the exhausting of his Spirits. Mr. *R.* Chirurgeon and my self were presently sent for. We found him lodged in an Inn near *Fox-hall*, and viewed his Wound. It was four fingers above the *Cartilago ensiformis*, a little to the left side: he had a small Pulse, and fainted often. Dr. *Wedderborn* and Dr. *Will. Denton* came in while we were providing Dressings. The Wound was large and penetrating. We made a soft Tent, with a Thread fastned to it; which in these Wounds you must be sure to do, lest you loose it in the Body. This Tent we dipt in a Mixture of Powder composed of *bol. Armen. sang. dracon. thus, mastich.* &c. *cum albumine ovi*, and applied over it a Pledgit spred with the same, also *empl. è bolo*, with convenient Bandage. The Physicians prescribed internally such things as restrained the Bleeding, & were proper to resolve the concreted bloud, and withal to relieve his fainting Spirits. That night he rested ill. The next day when we met, seeing him labour under great Difficulty of breathing, with pain above the *Diaphragma*, his Pulse quick, little Urine, and that high coloured, we agreed he should be let bloud presently; which was done accordingly in the left Arm. The bloud flowing with a quick stream, we took away about 6 or 7 ounces, a meer *Serum:* but the Patient was

1. Observat. of a penetrating wound of the Breast.

How to order Tents in penetrating wounds of the Breast.

was relieved by it. We then took off our Dreſſings, to look upon the Wound, whereupon we found ſome Bloud and *Sanies* diſcharged. We dreſt him with *terebinth. lot. in ſucco lamii*, adding ſome of the former Powders *cum vitell. ovi* upon a Tent as before, with a Plaiſter and Bandage over it. Thus we continued to dreſs him until we ſaw the Bleeding ceaſe. After which there was nothing for us to do, but to further the diſcharge of Matter from within, by keeping the Wound open until it leſſened, and the ill Symptoms went off: the caſting in of liquid Medicaments, which are not eaſily to be gotten out again, being very deſtructive. Therefore we diligently attended in aſſiſting Nature, by keeping a way open for the evacuation of what was extravaſated and corrupted within the Cavity, committing the Cure to her; who indeed acted her part ſo well, that in few days the Wound agglutinated within: and we thereupon leaving off the uſe of the Tent, cured the external Wound in few weeks by the common Sarcoticks, leaving him in perfect health, which he yet enjoyeth.

2. Obſervat. of a wound in the right Breaſt.

Another perſon was wounded into the Breaſt below the fourth Rib on the right ſide. He coughed up much bloud at times. Sir *Fra. Pruj.* was his Phyſician, who preſcribed him Ptiſans, pectoral Decoctions, *&c.* by which and frequent Phlebotomy the Symptoms went off. After the Wound digeſted, the Patient rambled abroad, and was cured by ſuch Dreſſings as I left for him at his Chamber, I ſeeing him no more until he was wounded again.

3. Obſervat. of a wound in the right Breaſt.

Another was wounded in the right Breaſt, coughing up much bloud, with great pain and Difficulty of breathing. I took away ten ounces of bloud preſently, and ordered him (it being then night) ſome *ſyrup. de meconio & jujub.* in a Draught of *aq. papaver.* with a few drops *ſpir. ſulphuris.* He ſlept well that night, and againſt the morning he had *decoct. pectoral. com.* (the hotter Herbs left out,) ſweetened with *ſyr. de roſ. ſicc. & jujub.* of which he drank in the morning, and at other times as he liſted. By his diſorder he frequently relapſed, and coughed up bloud at times: I let him bloud as often, and kept his Wound open and digeſted. But he relapſing again, I began to be ſick of him, and dealt with him to ſend for a Phyſician. Sir *Ed. Graves* was conſulted, who ſaw his Wound almoſt cured. We repeated Venæſection; and from that time he recovered, and continued well.

4. Obſervat. of a wound in the left Side.

A Footman was wounded into the left Side: he cought bloud, and diſcharged much by the Wound. A Servant of mine dreſſed him with a Tent, by which the Bleeding was ſtopt from flowing thereout: and by letting him bloud in the Arm, the Coughing of bloud was checked. The other Symptoms were afterward removed by Dr. *Walter Needham*'s Preſcriptions. Some few days after, a Tumour ariſing about the Wound, I gave him a viſit, and felt the ſwelled Parts crackle under my fingers. Concluding it Wind got out from the Cavity within the *Thorax*, I made an Inciſion into the Swelling about an inch long, by which the Wind was diſcharged. We digeſted the Wound *cum terebinth.* &c. and kept it open two or three Dreſſings, till the Penetration into the Breaſt was incarned; then leſſened the Doſſil, and healed it as in the former Obſervations hath been ſhewed.

5. Obſervat of wounds in the Breaſt and right Arm.

A Gentleman of about 23 years of age, of a full Body, was wounded in the Breaſt and right Arm. He was carried into the next houſe, and dreſſed by a *French* Chirurgeon. The next morning I found him much afflicted with a Colick and *Dyſuria*. Theſe Symptoms happening thus upon his Wounds, gave ſome occaſion to think they proceeded from the Wound inflicted on the Breaſt; but were indeed the effects of his ill Habit of body & manner of living; for he had been a Good fellow, and at that time over-warmed with Drink, and had layn upon a Pallet that night in a cold Chamber, which together

ſeemed

seemed cause sufficient for his complaint: however Bleeding was repeated. Fomentations were also applied to the *Abdomen*, Clysters administred, and all things done which were proper in such cases; Purging excepted, in consideration of his Wounds: the one whereof was said to be on the Region of the Heart, and the other in the Artery of the Arm. The third day after we prepared to dress his Wounds, and found the one, lying upon the *Sternon*, penetrating under the Skin to the *Cartilago ensiformis*, whereout we pull'd a Tent, near two inches long, and proportionably big. The other was a Puncture on the outside of the Arm, with a Tent crowded into it. I dressed this latter Wound with a Pledgit spred with a Digestive *ex terebinth. & empl. è bolo*, and in two or three dressings cured it. To the other I applied some of the same Digestive upon a small Tent; and having embrocated the adjacent Parts with *ol. ros.* I used *empl. è bolo* with Compress and Bandage, and designed that way to cure it. But the *Sinus* being depending, and the Wound disturbed by the unreasonable great Tent, hindered the Agglutination: wherefore after a dressing or two I snipt it open with a pair of Probe-scissors, and cured it by incarning, *&c.* The Wounds appearing so inconsiderable, the Patient was purged, and the *Dysuria* remitted: but a few hours after he was seized with a pain in his left Hip, for which he was again let bloud, Plaisters were applied, and Purging repeated. But after all, a *Diarrhœa* happened, which freed him of the Sciatick pain. Being thus relieved, he observed no longer the strict Rules prescribed him, but took the liberty to eat and drink as he listed, and attributed his Recovery to that.

6. Observat. of a wound through the Body.

A person run through the Body the breadth of three fingers under the right Clavicle, and out below the *Scapula*, was first dresst by a Chirurgeon near the place where he was wounded. I came some hours after, and found him in bed faint and weak, but without Pain or Difficulty of breathing. The next day I met Dr. *Bacon* Physician, and Mr. *Shocque* Chirurgeon to his Highness Prince *Rupert*. The Patient had rested very ill the preceding night, his Wound in his Back had bled very much, even quite through the Bed; he had also fouled many Napkins in coughing up Bloud. We took the dressings off the Wound in his Breast, from whence there had been some bloud discharged, and more came out soon after. I dresst up the Wound with a short Tent dipt in a little *terebinth. cum farin. volatili*, and a few of our agglutinative Powders mixed with the Yolk of an egg, and applied *empl. diachalcith.* over it. The other Wound under the *Scapula* was painful, but so small, that it was not reasonable in our judgments to keep it open. We therefore laid a Pledgit of the same Mixture with a Plaister upon that, and from that time dresst it no more; but dressed the Wound in his Breast daily, and repeated Venæsection as occasion offered. The third day he cought up bloud, and some little issued from his Wound that day and the next. Four or five days after I waited upon him to his Lodgings in *London:* by the way he cought some bloud, and so more or less day and night; but by the care of his Physicians it lessened daily, and his Wound being better digested, I kept the Orifice open by a short hollow Tent made of a Sparadrope, which was composed of *resin. pin. gum. ammoniac. bdellium, galban. terebinth. & cera*, with *pulv. ireos*, dipping it in a little *mel. ros.* This way of dressing I continued until the coughing of bloud diminished, from 12 Napkins in a day and night to 10, 8, 7, 4, 2, 1; yea to 1 in a week. After I saw no bloud one way or other, nor any Symptom of ill, I desired his Physicians and others might be consulted together and severally; and having all their positive judgments for throwing out the Tent, and healing up the Wound, I did so, and in a week more cured him. Five or six days after he sent me his thanks by his Servant: after which

I made him a viſit, and there met Dr. *Willis*, who inquiring of me whether his Wounds were cured, I deſired the Patient that he would ſhew the Doctor whether they were or not. He preſently ſtript himſelf of his Shirt, and ſhewed the Doctor, who both ſaw and felt the *Cicatrices*, and replied, They are well.

7. Obſervat. of a wound in the Breaſt.

A Young man wounded in the Breaſt, labouring under very great Pain and Difficulty of breathing, with a Cough, ſent for me late one night and ſhewed me ſome little bloud he had then cought up. He had been wounded the night before by a man ſtanding at a Door ſome ſteps higher than himſelf, as it were over him, thruſting his Rapier into his Breaſt, within two fingers breadth of the right Clavicle, downward into the Lungs. The Patient ran into that Houſe bleeding much, and was ſeized with ſuch Difficulty of breathing, that he was forced to ſtretch his Arms at length over his Head, without which doing he could not breath. He had been let bloud twice, and preſcribed Ptiſans, *&c.* but for all this he was very little relieved. I preſently let him bloud about ten ounces, and ordered the Apothecary to give him a draught of *aq. papaver. cum ſyr. de meconio & de roſ. ſiccis*, with a little *aq. Saxoniæ frigid.* and againſt the next morning appointed them to ſend for a Phyſician to meet me. They did ſo. When I came in the morning, I found the Patient marvellouſly relieved, and reſolved to remove (he being then in *Scotland-yard*) to his Lodging in *Wild-ſtreet*. In the preſence of his Phyſician Dr. *St.* I took off the Dreſſings, found his Wound ſmall, and healed up within, but not cicatrized: which if it had, yet the Wound within was ſo much below this without, that it was not capable of diſcharging the Matter, and ſo not worth my attendance, their Cure indeed conſiſting in internal Preſcriptions. However he continued me with his Phyſician, and we bled him again, taking away about ℥viij. of bloud, and proceeded in the method of Cure uſual in ſuch caſes. That afternoon the Patient, unknown to me, purſued his intention of removing to his old Lodging in *Wild-ſtreet*, where going up three pair of Stairs to his Chamber, he relapſt into the former Difficulty of breathing, with pain, and cought much bloud. The morning after we met there together again. The Patient ſeemed to us quite ſpent, labouring under great oppreſſion; and by his pains about the *Diaphragma* and Back there was ſuſpicion of extravaſated Bloud. We bled him ſome 4 or 5 ounces more, and repeated Embrocations, Lohochs, pectoral Decoctions, *&c.* and got off this difficulty in 5 or 6 days: then I left him. But after that by diſorder he relapſed again, yet was freed again the ſame way by his Phyſician, and recovered to be hang'd at laſt.

The Author's Obſervation concerning the diſcharge of the *Sanies* of the Breaſt by Urine.

Of all theſe wounded Patients, and many more I have helpt to cure, I never ſaw any that I could ſay paſſed their Diſeaſe by Urine, nor many of them that vented their Urine well during the time of their lying under theſe Wounds; nor have I often ſeen them who recover expectorate any ſuch quantity of Matter, as might be thought to proceed from the great quantity of Bloud extravaſated. They cought freſh bloud moſt of them, like to what they diſcharged from their Wounds, but more florid.

CHAP.

Chap. VIII.

Of Wounds of the Belly.

WE ſhall now ſay ſomewhat of the Wounds of the *Belly:* the Deſcription whereof you will find ſet down in the Diſcourſe of *Gun-ſhot-wounds*, with the Symptoms that attend the Wounds of each particular Part that ſhall happen to be hurt in it.

Wounds of the Belly either penetrate, or not. The Wounds not penetrating are ſuch as reach no farther inward than to the *Peritonæum.* If the *Peritonæum* be alſo cut through, it is reckoned a penetrating Wound: in which caſe, if the Wound be large, the *Omentum* or Inteſtines ſlip out. Theſe penetrating Wounds are alſo frequently accompanied with Hurt of ſome of the contained Parts, *viz.* the Inteſtines, Stomach, Liver, Spleen, *&c.* Difference.

If the Penetration be large, it is diſcovered by the thruſting out of the Kell or Gut. If the Wound be ſmall, you muſt ſearch it with your Probe. What internal *Viſcera* are wounded, may be gueſſed by the external Part hurt, but more certainly by their peculiar Symptoms. Signs.

Wounds not penetrating are without danger. Thoſe in the middle of the Belly are worſt, by reaſon of the Nervous body that lieth there, and conſequently more painful to be ſtitched, and difficulter of Cure, by reaſon of the Inteſtines and Kell preſſing moſt upon that Part. If any of the internal *Viſcera* be hurt, the danger is great, all ſuch caſes being accounted mortal. Prognoſtick.

Wounds not penetrating are cured as other Wounds of the Fleſh: But thoſe which do penetrate require other manner of handling. If the Inteſtines or *Omentum* do thruſt out, you muſt ſpeedily reduce them, leſt the former inflate, or the latter over-cool and corrupt. But if the Gut be ſo puſt out that you cannot return it in, you ought to foment it with warm Water, Red wine, or ſome diſcutient Decoction *ex ſummit. origan. puleg. fol. beton. ſalviæ, flor. cham. ſem. anethi, fœnic. dulc. aniſ.* &c. If by ſuch means you cannot reduce it, you muſt inlarge the Wound by Inciſion, and reſtore it to its place. Cure.

If the *Omentum* be ſlipt out and tainted by the Air, make a Ligature above the ſolid part, and cut it off; then ſtitch up the Wound, leaving the ends of the Ligature hanging out of it to caſt off. But if it be freſh and warm, reduce it with your fingers. Authors have propoſed ſeveral ways of Stitching theſe Wounds, which I ſhall not trouble you with; but adviſe you to make your Stitches ſo deep, that the *Peritonæum* may be united with the Fleſh: for if you fail therein, a *Hernia* muſt neceſſarily ſucceed.

If the penetrating Wound be ſo ſmall that neither *Omentum* nor Inteſtine ſlip out, (as it frequently happens when they are inflicted by Tuck or Rapier,) you may then conſider what Symptoms there are of the internal *Viſcera* hurt: and if there be neither Inflation of the Belly, Colick, Vomiting, or ought extraordinary by Urine or Stool, you may conclude all well; and being ſo, your beſt way will be to heal up the Wound by Agglutination: for by dreſſing it with Tents, you may cauſe diſturbance; and by expoſing it to

the external Air, Putrefaction, Colick, *&c.* may enſue. Therefore I think it neceſſary that theſe Wounds be healed with all expedition, and that the Patient do keep his Bed the while: for in ſitting up, the weight of the Bowels will ſtretch the *Peritonæum*, and make way through it. And though the external Wound in the Skin do not yield them paſſage, yet they will ſo neſt themſelves between it and the *Peritonæum*, as to make a *Hernia*. To prevent which, you ought to haſten the Cure, and not only to keep the Patient in Bed, but to make good Compreſſion upon the Wounds, that the Parts may unite while they are recent.

If in ſuch a penetrating Wound the Small guts be wounded, the vehement Pain, continual Vomiting of Choler, and dejection of Chyle by the Wound, will diſcover it: but in that caſe, the keeping of it open to ſeek the Inteſtine will be a hard task; and when you have found it, what will it ſignifie, but to increaſe the Accidents? Therefore it will be better to follow the method of the Ancients, to embrocate all the Region of the Belly with *ol. maſtich. & lumbric.* to dreſs the Wound with Sarcoticks, and to keep it cloſe and warm with Compreſs and Bandage. But if the great Inteſtines be wounded, and the Excrements diſcharge that way, it may be reaſonable to lay open the Wound, and ſtitch the Gut with the Glovers Stitch, ſprinkling it with ſome of the aforeſaid Agglutinatives; and reducing it back, ſtitch up the external Wound of the Belly, as hath been ſaid. In all theſe Wounds Venæſection is neceſſary, and may be repeated as occaſion ſhall offer. Regulation in Diet ought to be with great moderation. Clyſters may be adminiſtred after the ſecond day of Chicken or Veal broth wherein Barly hath been boiled: to which may be added Yolks of eggs, *mel. comm.* or Sugar of red Roſes, *&c.* Alſo Internals may be preſcribed, *viz.* Vulnerary decoctions of *fol. plantag. equiſeti, pimpinell. piloſell. rad. conſolid.* to which may be added *conſ. roſ. rub. conſ. cydonior. Bolus*'s may be alſo proper of *ſpecies diatragacanth.* with Balſamicks. Wounds of the Liver, Spleen, and other *Viſcera*, require to be treated much after the ſame manner by Internals. They ought more eſpecially to be kept open, either for the dreſſing them, or for the diſcharge of Matter. Alſo Cataplaſms may be applied *ex far. hord. fabar. flor. roſ. rub. coct. cum hydromel.* For farther ſatisfaction therein, I refer you to *Wounds made by Gun-ſhot.*

1. Obſervat. of a wound in the *Abdomen.*

A Man was brought to *Lambeth* wounded tranſverſe the Belly a little below the Navel on the left ſide; the *Omentum* and Inteſtines were thruſt out, and kept cloſe to the Wound with a Hankerchief in his hand. The *Omentum* was much out; but not being altered by the Air, I cauſed warm Cloaths preſently to be held upon them very cloſe, and the Patient to be placed low with his Head, and his Hips raiſed up: then by the help of his Friend raiſing them yet higher, and ſhaking his Body, I reduced them. After which, they having laid him down with his Hips raiſed, and his Body ſomewhat declining to the right Side, my Aſſiſtent preſſing with his hands ſomething above the Wound, (by which the Lips of it were a little turned upward, and the *Viſcera* kept down,) I prepared to ſtitch the Wound with a ſtrong Needle ſomewhat curved at the point, threaded proportionably, taking hold of the lower Lip; and paſſed my Needle firſt through the *Peritonæum*, and then to the oppoſite ſide, through the Fleſh and Skin, leaving the *Peritonæum*; and ſo along, taking it up on one ſide, and leaving it on the other, till I had ſowed up the Wound. Then I pull'd the Stitches as cloſe together as I could, and faſtened my Thread. The Wound thus ſtitcht, I ſprinkled the Stitches with *pulv. aloes, colophoniæ, ſang. dracon. maſtich.* &c. and applied Sarcoticks with a Plaiſter over all, made up of ſome of the aforeſaid Powders *cum. album. ovi*, and

The manner of ſowing the *Peritonæum* in this caſe.

and with Compreſs and a ſtrong Towel braced them all faſt. After a while I let him bloud, and ordered him to lie quiet upon the ſound Side, and to keep his body ſoluble by Clyſters, alſo to be moderate in eating and drinking. I dreſt him after the ſame manner every other day; and when the Wound ſeemed to be cicatrized, and that my Stitches began to fret, I cut them out the eighth or ninth day; but continued the uſe of Sarcoticks till it was firmly cicatrized

Theſe Wounds are not ſubject to great Inflammation or Defluxion; but by reaſon of the fatneſs and thickneſs of the Lips, and by preſſing of the Kell and Guts, the ſtitching of the Belly is a troubleſome work: and yet if the Wounds be not ſo ſtitched that the *Peritonæum* and Fleſhy parts may unite together, a *Hernia* will follow, as I told you, for the *Peritonæum* bears a great ſtreſs. Therefore you muſt be ſure to take good hold with your Stitches: and if you doubt their holding, make dry Stiches over them, with good Bandage.

2. Obſervat. of a wound in the Belly.

A Man was wounded with a Rapier into the Belly through the right *Hypochondrium* out by the Back. I conſidered the Wound, and ſaw the Orifices were ſmall, and little advantage to be made by keeping them open: yet I put in two ſmall Tents dipt in a little Digeſtive *ex terebinth. cum vitell. ovi*, and dreſt them up with *empl. è bolo* and Bandage, adviſing him to keep his bed and be quiet. I alſo preſcribed ℥vj. *ſyr. de meconio* mixt in a draught of *aq. papaver.* to take that night. The next morning I found him hot, and his Pulſe a little diſturbed, but without any Symptoms of the *Viſcera* wounded; neither Tenſion of the Belly, Colick, Vomiting, or ought extraordinary by Urine or Stool: however I let him bloud about 10 ounces, directing him a Clyſter of Milk, *&c.* to be adminiſtred that afternoon, and at night his Anodyne was repeated. The next day I took off Dreſſings, and conſidering there was no Symptom of hurt within, only the Wound a little heated by the Tents, I threw them out, and dreſt both the Orifices with Pledgits ſpred with the aboveſaid Digeſtive, embrocating the Parts about with *ol. roſ.* &c. applying a Plaiſter and Bandage as before, and deſiring him to keep his bed five or ſix days longer. I dreſt him afterwards again; and finding the Apertures well diſpoſed to cure, from that time I dreſt him no more, but adviſed him to be temperate in eating and drinking, and if there were occaſion, I would ſee him again. My Servant dreſt him afterward, and before the ſeventh day was expired, he was cured, and walkt abroad, not complaining any more of that Wound.

Signs of the inward *Viſcera* hurt by a wound of the *Abdomen.*

Thus it frequently happeneth, that a Sword paſſeth through the Body without wounding any conſiderable Part. Yet if the Wound had been kept tented, it might have been ſubject to Inflammation, by reaſon of the diſturbance there, from whence ill Accidents might have happened. And what could the Chirurgeon have advantaged the Cure by keeping ſuch little Wounds open, ſuppoſing bloud had been extravaſated, which is the common pretence? Yet if it be not done, he is uſually condemned by the common vogue. Therefore it is that ſome of our Profeſſion, poſſibly againſt their own judgments, keep them tented often, to the ruine of their Patient.

Chap. IX.

Of Wounds of the Head.

I Shall now diſcourſe of Wounds of the Head, not only as they are made by Cut, Stab, or Bruiſe, but alſo of thoſe made by Gun-ſhot; and ſo by anticipating part of the Diſcourſe next enſuing, give you the full Doctrine of them, by what Inſtrument ſoever made, without a neceſſity of future repetitions. And that you may underſtand the *baſis* whereon theſe Cures are wrought, I ſhall repreſent the Head to you as it is framed.

Parts of the Head conſidered.

The Head, according to *Galen De uſu part.* is the nobleſt Member of our Body, the principal Faculties being there ſeated, for the uſe of which it was ordained; and is ſo contrived, as to be the foundation of Animal Spirits, and alſo to contain the principal Organs both of the internal and external Senſes.

The Hairy ſcalp.

In the firſt place the Hairy ſcalp preſents it ſelf to our eyes: and therein is to be conſidered its Thickneſs, Senſe, and Veſſels, with the Muſcles that lie under it. The Hairy ſcalp is thinneſt on the top of the Head; nor is there any Muſcle between it and the Scull in that part, unleſs you will call the *Membrana carnoſa* a Muſcle; which ſome men of late do, and poſſibly not improperly; and the rather, becauſe by it many men move the whole Scalp. If you doubt of a Fracture there, you may boldly cut into the Hairy ſcalp: it is of an obtuſe ſenſe, and eaſily healed up again. But be cautious how you make

Forehead.

your Inciſion in the Forehead, where a tranſverſe Wound may cauſe the Eyebrows to fall over the Eyes. Therefore if you are forced to make Inciſion, let it be according to the length of the Fibres. And be careful that you make

Temporal Muſcles.

no Inciſion upon the Temporal Muſcles, for thereby Convulſion and other ill Accidents may happen.

Pericranium.

Under the Hairy ſcalp lies the *Pericranium*, which we are to cut through in making way to the *Cranium*. You are to raiſe them both together, when you lay bare the *Cranium* for the uſe of the *Terebra*. For (ſay Authors) if in perforating the *Cranium* you tear this Membrane, Inflammation and Fever may follow; the *Pericranium* ariſing from the *Dura mater* through the Sutures, by which continuity that may alſo partake of the Inflammation.

Cranium and Sutures.

The *Cranium* follows, which is a Bone compoſed of many joynted together by Sutures, of which there are five concern us; *Coronalis*, *Lambdoides*, *Sagittalis*, and two falſe ones. In perforating the *Cranium*, you are to ſhun theſe, (if you may,) for through them the *Dura mater* paſſes, as I told you, and is continued unto the *Pericranium*. The Sutures divide the Bones of the *Cranium*, by which one part of it may be preſerved intire, while the other is broken, which otherwiſe would be in hazard. Theſe Sutures are weak in reſiſting Blows, and between them Matter may be unhappily retained, and cauſe a *Caries*, and ſooner work through to the *Dura mater* than in other parts of the Scull. It is neceſſary to know them well, leſt, as *Hippocrates* gives good caution, you take them for Fiſſures. The way of finding them is, by

paſſing

passing one String from Ear to Ear, and another from the Nose to the Crown of the head. The former of these will shew you the Coronal Suture, the second the Sagittal, which usually begins at that point where these Lines interject, being the part where we make Fontanels, and reacheth to the Crown of the head, and joyneth with the *Lambdoïdes*. Sometimes it beginneth quite at the Nose. The *Lambdoïdes* ariseth at the end of the Sagittal, and goeth forked down the two sides of the *Occiput*. Of the *Suturæ nothæ*, the two chiefly to be regarded are the *Squamosæ*, which run under the Temporal Muscle of each side, round about the outermost verge of the Ear. You are also to take notice, that the *Cranium* is thinnest in the middle part of the Head, and thickest in the hinder part, and of a middle thickness in the Forehead. Hence it is that Wounds are most dangerous in the Crown of the head, where the Scull, by reason of its tenuity, easily communicates its hurt to the Brain; and also for that the upper part of the Brain lies there high, one of the largest *Sinus*'s being immediately under the Scull, and many capillary Veins running so close with it, as to make themselves Trenches in the internal part of the *Cranium*. Wherefore upon a Blow or Contusion in this place, the Veins may easily be broken, and the bloud extravasated between the *Cranium* and *Dura mater*, and ill Accidents follow.

Dura mater.

The *Dura mater*, a strong Membrane, is placed under the *Cranium*; the wounding of which is attended frequently by Palsies, and in progress of the Distemper by Convulsions, with other ill Symptoms; and the greater, if the Wound be in the middle part of the Head according to its length, there being many Vessels there, which, if they chance to be cut, will fill the vacant space between the *Cranium* and *Dura mater* with bloud.

Pia mater.

The *Pia mater* lies upon the body of the Brain, so close, that a Wound cannot be made into the *Pia mater*, and the Brain escape: and from its many Veins a Flux of bloud must follow.

Brain.

The Brain lies under the *Pia mater*, in whose Ventricles is lodged the *Plexus choroïdes*, and under whose *basis* lie large numerous branches of Arteries and Veins, which by great Blows of the Head may be broken.

Description and Difference of wounds in the Head. Concussions, Contusions, and Fractures.

From the Description of the Head we shall proceed to the Description of its Wounds, which are strictly so called, where any part of the Skin, Flesh, Bones, Membranes or Brain is cut or torn.

But where the Skin remaineth whole, Concussions & Contusions do often happen, and will deserve to be treated of in this place with the Wounds: not only because they are the frequent Companions of Wounds; but also because, when alone, they produce grievous Accidents resembling those of Fractures, nay often exceeding them. I shall therefore gradually describe Concussions, Contusions and Fractures, under the following Heads.

1. There may happen Concussions of the Brain from a Blow, Fall, *&c.* nay sometimes from a Box on the ear, wherein the Symptoms may arise to a great height, without breaking either the Skin without, or Scull within. Which Concussions if they be of the lesser sort, wherein no Vessel is broken or bloud extravasated, so that the person is only stunned, he soon recovers. But if of the greater sort, with rupture of the Vessels and extravasation of bloud, they produce *Stupores*, *Vertigines*, *Deliria*, and many the like Symptoms, and are every whit as dangerous, nay often more dangerous than Fractures themselves.

2. Contusions, when great, do usually produce a Fissure or Crack of the Scull, either in the same part where the Blow was inflicted, and then it is called *Fissura*; or in the contrary part, in which case it obtaineth the name of *Contrafissura*. These Fissures are through both Tables of the Scull, or one only.

If

If one only, then either outward, or inward, the other *Lamina* remaining whole. They are long, ſhort; wide, narrow; ſtraight, crooked; *&c.*

3. Contuſions are conſiderable whether they be with a Wound, or not. Thoſe without a Wound are for the moſt part accompanied with great Concuſſions, and ſometimes Fiſſure and Fracture, or Depreſſion of one or both Tables: in which caſe the ſpongy medullary interval that intercedes between the 2 Tables is frequently broken into its minute Fibres, and ſqueezed together. Hereupon Extravaſation of bloud followeth, and other Accidents that will be taken notice of in the Prognoſticks and in the Obſervations.

4. Next to theſe are Contuſions with Wounds, which are generally attended with Fracture properly ſo called, where a piece is wholly divided from the reſt of the Scull. This Fracture ſometimes conſiſteth of many pieces, ſome whereof are depreſt upon the Membranes, yea into the Brain it ſelf, while others lie intangled in the Fleſh.

5. Next to theſe are Wounds made by any ſharp Weapon, which, according to the force, cutteth into the Bone many ways, which Cuts are called *Sedes*, and are reckoned amongſt the Fractures; and ſo thoſe made by Pole-axe, Halberd, and ſuch obtuſe heavy Weapons, may juſtly be termed. But thoſe made by a Sword have ſeemed to me Wounds, and not Fractures; and when they do not penetrate the firſt Table, require no other Cure than that of Wounds; as may be ſeen in ſome of the Obſervations. But when the Penetration is deep, I do treat it as a Fracture, and ſo I place it here.

6. Out of theſe proceed ſeveral Species of compound Fractures; as the *Eopieſma*, *Camaroſis*, *Eccope*, &c. which every man's experience will ſuggeſt to him.

Signs. *Celſus*, in his 8. Book and 4. Chapter, adviſes, when you are called to a Patient in ſuch caſes as above mentioned, to enquire whether he was ſtunned, or fell down with the Blow, or vomited preſently after. You are alſo to enquire how he was hurt, whether by Blow, or Fall. For from the force of the Weapon, and manner of the Fall, you may ſhrewdly gueſs at the caſe. You are alſo to conſider the Tumour, whether it be great, or ſmall. If there be a Wound, nothing is more ſure than your Finger to diſcover the Fracture. If you feel any Aſperity, if it be not a Suture, you may be ſure it is a Fiſſure or Fracture. But ſuppoſing there be neither Wound nor Tumour, yet if the Patient ſuffer under a Palſey in any part, or lie ſtupefied or raving, it is moſt certain the Membranes of the Brain are oppreſt. And if the Hair lie cut in the Wound, you may ſuppoſe the *Cranium* hurt, it being no ſmall force can divide Hair in that place. The holding a Thread between the Teeth, or biting a Cruſt, is mentioned by Authors as a way to find out a Fracture: but I think it of no great moment, unleſs the Fracture be near or under the Temporal Muſcle.

Prognoſticks. Wounds of the Head, according to *Hippocrates*, are not without danger, how ſlight ſo ever they may appear to common judgment. Inciſed Wounds of the Hairy ſcalp reaching to the *Cranium*, cut by a Rapier, are the leaſt dangerous or difficult of Cure. Thoſe made by a Halberd, Bill, and ſuch like heavy Weapons, are not without danger; ſo alſo thoſe made by Puncture with a Dagger. By how much the nearer they penetrate to the Brain, ſo much the more dangerous they are. All Contuſions of the Head are to be ſuſpected, for from thoſe the greateſt Symptoms do ariſe. If in laying open the *Cranium* the Patient recover not his Senſes, you may ſuſpect an Extravaſation of bloud under the *Dura mater*; in which caſe his Life is in great hazard. Thoſe Fractures made by Gun-ſhot do for the moſt part beat pieces of the Scull into the Brain, and ſo may be determined mortal. But be the Hurt what it will, if it penetrate not farther than the *Dura mater*, it is curable, if it be

be timely laid open, and dreſſed, as ſhall be ſhewed in their proper places.

We begin with the *Cure* of ſimple Contuſions of the Hairy ſcalp happening by Blow or Fall, attended with Pain, Inflammation, and Tumour. In order to the preventing or removing of which, you ought in the firſt place to ſhave off the Hair, if there be any, and embrocate the Tumour and Parts about *cum ol. roſ. myrtyll. & aceto*, and apply this or ſuch like Cataplaſm on the affected Parts: ℞ *far. hord. fabar. an.* ℥vj. *pulv. nuc. cupreſſ. balauſt. aluminis roch.* ℥j. *roſ. rubr.* ℥vj. *ol. roſ.* ℥iij. *album. ovor. num.* ij. *aceti q. ſ. fiat Cataplaſma.* After you have thus dreſſed the Patient, let him bloud in the Arm or Neck of the ſame ſide, and ſome hours after let a Clyſter be adminiſtred; and lay him to reſt at night with a Draught of an Emulſion of the cold Seeds, *&c.* The next day repeat the former method of dreſſing; and after you have thereby reſtrained the afflux of Humours, you may foment the remaining Tumour with Red wine wherein have been boiled *fol. betonic. flor. anthos, ſtœchad. cham. roſ. rub. bacc. myrtill.* &c. and embrocate with *ol. roſ. & cham.* But if it grow hard and painful, and threaten Apoſtemation, foment it with *decoct. ſummitat. malvæ, rad. althææ, ſem. lini & fœnugræci*, and make a Cataplaſm of the *Fæces*, adding *far. hord.* &c. And if it ſuppurate, treat it as a *Phlegmon*. But if the Pain do mitigate, and the Tumour be continued with extravaſated bloud, as in an *Ecchymoſis*, you ought then to diſcuſs and dry up the Seroſity by ſuch like: ℞ *far. hord. fabar. an.* ℥iij. *flor. roſ. rub. bacc. myrtill. an.* ℥j. *ſummit. abſinth. fol. beton. flor. ſambuci, cham. an.* ℥iij. *ſem. cymin.* ℥j. *pulver. & coq. in vin. rub. addend. mell. com.* ℥ij. *ol. roſ. & cham. an. q. ſ. fiat Cataplaſma.* If by theſe the Humour doth not dry up, nor the Tumour diſcuſs, open it, and digeſt and cure it as in its proper Obſervation will be ſhewed. If there be a Concuſſion with the Tumour, you ought to begin with letting bloud, and repeat it as you ſee occaſion, even to failing of the Spirits; and keep the Body ſoluble by Clyſters; alſo contemperate the Ferment in the bloud by frequent Draughts of Emulſions, *&c.* The external Applications are much the ſame as have been above ſaid, by ſhaving off the Hair, and embrocating the Head and Neck *cum ol. roſ. myrtill. album. ovor. & aceto*, and applying Cataplaſms as above ſaid decocted in Red wine or Oxycrate. After ſome days, when the Symptoms are remitted, apply *empl. Vigonis ad contuſiones*, or this following, which is alſo his; ℞ *furfur. tritic.* ℥iij. *far. lentium* ℥ij. *flor. roſ. rub. bacc. myrtill. balauſt. an.* ℥j. *calam. aromatic.* ℥jß. *flor. cham. melilot. an.* ℥ß. *nuc. cupreſſ. num.* vj. *pulver. omnia, & coquant. in vin. auſter. q. ſ. ad conſiſt. Cataplaſm. addendo ol. roſ. cham. an.* ℥iij. Or with Wax, *&c.* you may make it in the form of a Cerote. Fomentations may likewiſe be made of the foreſaid Ingredients. But in caſe the Concuſſion do not ceaſe by the preſcribed Remedies, then lay open the ſuſpected Part, and proceed as hereafter ſhall be ſhewed. Cure.

In great Contuſions without a Wound, if the Tumour be large, feel pappy, and increaſe notwithſtanding your application of Refrigerants; you may ſuſpect the quantity of *Serum* raiſing the Tumour to proceed from within, through ſome Fiſſure *in Cranio*. In which caſe (having conſidered the Symptoms) make Inciſion into the Tumour proportionably. And if you feel no part of the *Cranium* bare or depreſt, dreſs it up with Digeſtives, and make your Applications over it of ſuch Medicaments as have been preſcribed in the former Contuſions. And if thereupon the Tumour do flat, and the Wound digeſt, proceed in the Cure accordingly. But if there be Depreſſion, or other ill Symptoms of internal Parts hurt, lay the Hairy ſcalp more open, and make way for farther inſpection.

Simple incised wounds.

In the Cure of Wounds of the Head, if they be made by a Rapier dividing the Scalp to the *Cranium*, nay though it cut the Scull, if there be no Symptom of an internal Hurt, the Lips of the Wound ought to be brought close together, and healed by Agglutination. The Stitching of these Wounds is objected against by some, lest Matter should be thereby pent in, and foul the Bone. But if you can satisfie your self that the Wound ought speedily to be healed, the work is safe, if done judiciously. Abroad in *Spain* I have seen them as commonly stitched as other inciſed Wounds: and in the Wars we stitched them successfully; and here in Town I have stitcht up great Wounds of the Hairy scalp. However you ought not to crowd these Wounds with Dossils, for thereby you may raise a Fever, & prolong the Cure. Therefore having clipt away the Hair, dress the Wound *cum pulv. Galen.* & *empl. è bolo*, or some Defensative, with Compress and Bandage bringing the Lips close together; & afterwards let the Patient bloud, if he did not bleed sufficiently at the Wound: and the day following administer a Clyster, if the Body require it. At the next dressing, embrocate the Parts about *cum ol. ros.* &c. and dress the Wound with *liniment. Arcei* upon Pledgits, and it will soon cure. But if the Lips of the Wound were not retained close together at the first dressings, it may be necessary to dress it with Digestives *ex terebinth.* &c. embrocating the Parts about, and apply Plaisters accordingly. Thus in a few days all these inciſed Wounds may be cured.

Observation of an inciſed wound transverse the temporal Muscle.

One *Smith*, sometime a Tanner in *Chester*, was afterwards a Captain of a Company of Dragoons, which he pickt up in haste, to disturb us in our Retreat from the Battel of *Worcester*. He was wounded by some of our Souldiers transverse the right Temporal Muscle, and was bleeding almost to death, when I was brought to his Quarters. I stitcht his Wound, taking the Artery up with the Lips, and, for want of other Remedies, drest it with a little Wheat-flower and the White of an egg, applying over it a Compress prest out of Vinegar with convenient Bandage. The third day after I took off Dressings, and found the Lips near agglutinated. I being then better provided by an Apothecary from *Warrington*, sprinkled the Lips of the Wound with *pulv. thuris & sang. dracon.* and applied a Pledgit spred with *liniment. Arcei*, and over it *empl. diachalcit.* The second day after I cut the Stitches, and applied Epuloticks; and afterward by a Dressing or two more cured him. I am sure he was well of his Wound before he had recruited his Spirits he lost with his Bloud.

Wounds of the Head with loss of substance.

In Wounds of the Head which you cannot cure by the first Intention, as where they are inflicted by a Weapon with an obtuse edge, or where there is loss of Substance, as part of the Lips torn off, there you must digest; and to that purpose the common Digestive *ex terebinth. cum vitell. ovi, & farin. hord.* is proper. It may afterwards serve for a Detersive, if you add *mel. comm. aut rosat. pulv. ireos, sarcocoll.* &c. With a farther addition of Myrrh and Aloes, it is a good Sarcotick. Or you may incarn with *liniment. Arcei*, which was by him designed for Wounds of the Head. *Vigo* commends this; ℞ *ol. ros. ac.* ℥ vj. *ol. mastich.* ℥ij. *pingued. vitulin. porcin. an.* ℥iv. *fab. plantag. matris sylvæ, beton. pimpinellæ, pilosellæ, flor. anthos, an.* Mß. *vini odoriferi cochl.* iiij. *coquantur ad consumpt. vini*; *colat. adde mastich. gumm. elemi, resinæ pin. an.* ℥j. *litharg. auri & argenti an.* ℥ij. *minii* ʒx. *terebinth. Venet.* ℥iv. *ceræ q. s.* If in the incarning the Wound the Flesh grow luxurious, touch it with a Vitriol-stone, and it will deterge, and dispose it to cicatrize; which you may then compleat with Pledgits of Lint prest out of *spir. vini, aq. calcis*, &c.

Unguent. Matris-sylvæ.

In Wounds made by Contusion where the *Cranium* is a little naked, you ought not presently to crowd in Dossils: for if that contused Flesh be well digested, the Bone will incarn underneath with the Wound without much difficulty.

difficulty. In those of the worst Habit of body I have happily incarned, by keeping the Orifice a little open by a small Dossil pressed out of *spir. vini*, and defending the Parts about from Fluxion by Medicaments and Bandage, as hath been shewed in such cases. Take care that the Matter be not shut in by your Dressings; for thereby the Wound may be made more hollow, and the Cure prolonged. To prevent which, I have been sometimes necessitated to apply a Compress round, leaving a hole in the middle of it, for the discharge of Matter, whilst the Parts about incarned by Compression.

But if the Wound be with so great Contusion, that it casts off a Slough, and leaves the *Cranium* much naked; though it be not fouled either by the Matter or Air, yet it will then be necessary to rasp it: for the Bone is naturally smooth and slippery, as if it were polished, and Flesh difficultly groweth upon it. Wherefore to hasten the Cure, you ought, by the authority of *Galen* and the most practical men, to rasp the Bone thin, till you see the bloud ready to come out of it: the Bone will thereby be the sooner supplied with materials for generation of Flesh. But if your Patient will not admit of Raspatories, then you ought to keep your Dossils close to the Lips of the Wound, and make your Exfoliation from the edges, that the sound part may thrust off the rotten Bone. For neither Crabs-eyes, nor any Medicine inwardly prescribed, or Wine outwardly applied with Lint, or other Medicaments to the middle of a Bone, will signifie any thing to the Exfoliation of it: nay, the while you are so trifling, the Matter from the edges will rot the Bone underneath, and in continuance pierce through the first Table, and run down between the two Tables, thereby doing much mischief, and so will put you upon the use of the *Terebra*. After the Bone is scraped, you may dress them with Pledgits dipt in *liniment. Arcei* hot. If it require Digestion otherwise, apply them prest out of *spir. vini*, either simply, or such wherein hath been infused *pulv. radic. ireos, aristoloch. peucedan.* &c.

If in a Wound of the Head made by a Sword the Scull be cut slanting off, or into the second Table, if there be no Symptoms of Concussion, you ought not to lay open the Wound to set on a *Terebra*, but cleanse and dress it up with a proportionable Dossil prest out of *spir. vini*, and digest the Lips of the Wound as above said, and attend the Exfoliation; then heal it. Some Authors have advised the Rasping of these Bones; but in this case it is needless: for if the Bone be dressed as I have said, the Flesh will soon arise in that Cut of the Bone, and make Exfoliation of what is necessary, and incarn it, without your farther trouble.

Fissure *in Cranio.*

If the *Cranium* be hurt by a sharp cutting Weapon, it cannot be without Solution of continuity in the Hairy scalp: but by a Fall or Blow the Scull may be fissured or fractured, and the Hairy scalp whole, and this Fracture or Fissure may be under the Contusion, or in some other Parts. If the Symptoms do demonstrate that there is a Fracture or Fissure, you are then without delay to open the Hairy scalp according as the Part will admit, angularly, or in the manner of a Cross, or of the Letter T, that the Fracture may be discovered by the raising of it up with its *Pericranium*. For if you shall in doubtful Fissures or Fractures make a round Incision, and take out the whole piece; then, if there chance to be no Fissure, you have made your self a long work to little purpose: and if the Fissure run under the Hairy scalp farther than you made your Incision, you may then be necessitated to cut it open that length: by which it will appear you have through mistake laid it open more than was necessary in one place, and too little in another, doing that which neither *Hippocrates* nor any judicious Chirurgeon would ever allow. Whereas if you had laid it open by a cross Incision, you might by only raising the Scalp have discovered

Against round Incision upon surmise.

vered the Fiſſure or Fracture: and if yet part of the Fiſſure or Fracture had lain undiſcovered, you might have ſtretcht your Inciſion to it: and in caſe after all there had been no Fracture nor Fiſſure, which often happens, eſpecially in Contrafiſſures, then you might have laid the Hairy ſcalp down again, and eaſily cured it; which by an exciſion of part of the Scalp you cannot do.

Objection. As to what may be objected, that the raiſed-up Lip might be troubleſome to the Chirurgeon in his work, and painful to the Patient; there is no ſuch thing: for if the Inciſion be made the way propoſed by the Ancients, and that the Fracture or Fiſſure be all in your view, you may order the Lips of the Wound as you pleaſe.

The *Cranium* laid bare, you are to fill up the place opened with Doſſils of dry Lint, or preſſed out of Red wine or Oxycrate, or a Sponge preſt out of either of the ſame Liquors; and apply a Plaiſter over all of *diachalcith.* malaxed with *ol. roſ. cum aceto*, and bind it up.

Trial of Fiſſures. At the next dreſſing you muſt conſider the Fiſſure. If it be ſo ſmall, that you doubt whether it be one or not, then wet it with Ink, and wipe it off again, and the Ink will diſcover where the Fiſſure is. But if it do not, then this Emplaſter may be applied: ℞ *ceræ novæ flavæ, thuris, ladani, an.* ℥ij. *farin. fabar. terebinth. aceti, an.* ℥j. *Miſce ad ignem.* You ought to apply it on the ſuſpected Part, and the next day, where you ſhall find it moiſt, there you are to rugine it.

Fallopius tells us, that where the *Cranium* is contuſed, certain Spots will appear red, not unlike thoſe white ones which are uſual in the Nails of the fingers; but after the third day the bloud exhales, and that redneſs ceaſeth. If by the Emplaſter you diſcover the Fiſſure, or that the Bone contuſes, you are to raſp the contuſed Part the whole length: to which purpoſe you ought to be furniſhed with various ſorts of Raſpatories. Whilſt you are working with them, the Lips of the Wound ought to be covered with ſome ſoft Linen, that you neither hurt them, nor yet the Air offend them. Sometimes very ſmall Fiſſures, how inconſiderable ſoever they may ſeem, are the cauſe of the Patient's death, there being often found extravaſated bloud upon the *Dura mater*, and the Veins broken, either by the Concuſſion from the Blow, or by the rough edges of the inner Table. Therefore you are to conſider the Symptoms, and accordingly lay open the Wound either by Raſpatories, or otherwiſe cutting into it, ſo as the *Sanies* may be diſcharged, and the aſperity taken away. But if there be a Fracture of the *Cranium*, you ought to ſatisfie your ſelf whether it be in one or both Tables: if in both, then, whether the Depreſſion of the Bone be great, and what Fiſſure there is: and accordingly make way to relieve the *Dura mater* underneath; for it cannot be without great diſturbance, *viz.* Inflammation, Fever, and *Delirium*; from whence *Coma*, Convulſions, Palſies, and Death enſue, if neglected. But if there be a Fiſſure ſo large as to diſcharge the Seroſity, you may take more deliberation in laying it open, or raſping the Bone. If it be otherwiſe, then the Trepan ought to be applied, to give vent to the *Serum*, and to make way for the raiſing the depreſt Bone. But if the Bone be not much depreſt, and the Fiſſure conſiderably large, it is then at your choice whether you will inlarge that Fiſſure, or continue it for evacuation of the Matter, and forbear the uſe of the Trepan, not doubting but a ſmall Depreſſion of the Bone will either riſe, or caſt off, by the benefit of Nature. I know it will be hard to diſſwade ſome Chirurgeons from applying a Trepan in this caſe; for I my ſelf have been glad to comply with ſome of them, in ſetting on a Trepan where the Fiſſure was ſufficiently large, and when all the ill Symptoms were remitted, and where there was no

Fracture *in Cranio* with depreſſion.

Depreſſure

Depreſſure of the *Cranium*. But what did it ſignifie? Indeed, where the Fiſſure lieth untowardly for diſcharge of Matter, or where the Depreſſion of the *Cranium* is deep, there a Trepan ought to be timely applied.

Perforation. In order to the Perforation of the *Cranium*, the Bone muſt be cleared of its *Pericranium*, leſt in ſetting on the *Terebra*, or *Modiolus*, (which are two ſeveral names for a Trepan,) you tear the Membrane. The Lips of the Wound ought alſo to be covered the while. The *Terebra* ought to be ſet on that ſide which is moſt depending. And in caſe of a Depreſſion, make your Perforation ſo near, that you may afterwards be able to raiſe up that by it. When you have ſet on your Trepan, preſs upon it with your left hand, and turn it round with your right. You muſt uſe a little *ol. roſ.* or Milk to cauſe it to move the eaſier, and as it fouls, bruſh it; in doing of which it will cool. Before you approach to the ſecond Table, (which you may know by the bloud that appears,) it will be required that you take out the Pin, and proceed more warily, not liſtening to the pratling of the Standers by, but often lifting up your hand, leſt by your compreſſion or haſte you unawares fall upon the *Dura mater*, and wound it. Some Chirurgeons do bring out the Bone in the bore; but it will be ſafer to raiſe it up with your Levator, when it is ſo cut, that it is but lightly retained in ſome part. During this work, it is fit the Patient's Ears were ſtopped with Lint, leſt the noiſe diſturb him. The Room ought alſo to be cloſe. The Perforation made *in Cranio*, and the Bone taken out, you are to ſmooth away the Aſperity which remains in the lower Table by the Lenticular inſtrument made for that purpoſe.

First dreſſing after Perforation. If after this the Membrane be fouled by the Saw-duſt of the Bone, you muſt wipe it off with a ſoft Sponge, or a little Lint upon your Probe. The Part being cleanſed, you are to dreſs up the Membrane. About this firſt Application Authors differ much. *Avicen* dreſt them with Lenients, *viz. ol. roſ. Celſus* dreſt the Part with *ſiccantia, viz. cum aceto acerrimo.* You may find him poſitively for it in theſe words; *His factis*, (the Perforation being made,) *ea membrana acri aceto reſpergenda eſt, ut ſi intus concretus cruor remanet, diſcutiatur*, &c. He ſprinkled the Membrane with ſharp Vinegar, to prevent the Bleeding, and diſſolve the concreted Bloud lying upon the ſaid Membrane or *Dura mater*. But the moſt part of the Ancients, and many of the Moderns, have adviſed Lenients, as *ol. roſ.* that the bloud extravaſated, and lying upon the *Dura mater*, *in pus convertatur*, may be digeſted. But in this you are to be guided by your Eye. If there be *Sanies* or Putrefaction, *mel. roſ. ſpir. vini*, and higher Detergents may be uſed, accordingly as the Putrefaction is more or leſs. If there be much bloud extravaſated, or that you fear bleeding, that of *Celſus* may be proper: but if the bloud be recent, and exceed not in quantity, it poſſibly happened from ſome Scratch of your Trepan, or ſome little Aſperity of the inner Table. If there be neither of theſe, but the Membrane freſh, and of its natural colour, then you are not to grieve that Membrane now expoſed to the Air with Detergents, nor by the acrimony of Vinegar: for if you ſhall by ſcratching of the Membrane make it bloudy, and then dreſs it with either *acetum* or *mel. roſ. ſpir. vini*, &c. you ſhall then proceed contrary to the common Indications in Chirurgery, which teacheth to digeſt recent Wounds before you deterge: and indeed what would you deterge?

Therefore I do adviſe the uſe of Lenients, not only by the authority of thoſe ancient and modern Chirurgeons, but by my own practice. *Galen* propoſed *ſang. columb.* and the bloud of Turtles dropt warm from their wings. *Falop.* and *Fabric. ab Aquapend.* propoſed *ol. roſ.* with *reſin. abietis:* and afterwards they increaſed the Reſin, and leſſened the Oil. But if there be Putrefaction through the long lying of concreted bloud, *&c.* then *mel. roſ.* and *ſpir. vini* are proper,

proper, yea *mel Ægyptiac.* and higher if occaſion ſhall offer. But in the common caſes, after recent Terebrations, Reſin by its emplaſtick quality mixed with *ol. roſ.* perfects the concoction ſooner, and by its anodyne quality ſecures the Part from Inflammation. It ought to be proportioned to the Habit of body: dry Bodies require more of the Reſin, and leſs Oil. And by this ſimple Medicament I never failed of good Digeſtion; and afterwards by the tempering of it as I have ſaid I have deterged and digeſted, always continuing the uſe of it until the Membrane was well digeſted, never finding the leaſt prejudice the bare Bone received from it. But you muſt take care that you do not uſe Digeſtives unſeaſonably, for thereby you may relax Parts. Therefore after Digeſtion add more Reſin, and leſs Oil. Or you may mix *mel. roſ.* with the Reſin in ſtead of the Oil, which will anſwer your intention, both to deterge and incarn. Or you may uſe this to both purpoſes; its Compoſition will commend it ſelf: ℞ *terebinth. Venet.* ℥j. *ol. roſ.* ℥iv. *mell. roſ.* ℥iij. *croci* ℈j. *granor. kermes* ʒß. *ſem. hyperici* ℈ij. *vini Hiſpanic.* ℥iij. *coq. ad conſumpt. vini; colat. adde aloes* ℥j *Miſc.* Theſe Medicaments may be applied upon the *Dura mater*, and a Button of Lint over, to fill up the hollow in the Bone: the reſt of the Bone may be dreſſed with dry Lint or *liniment. Arcei*, and the Lips of the Wound with a Digeſtive as aforeſaid *cum terebinth.* over which apply *empl. diapalmæ* malaxed with *ol. roſ.*

Caution.

In the uſe of Medicaments you are to conſider the Part and Habit of body, and add or diminiſh your Simples accordingly as you deſign to deterge or incarn, *&c.* and ſo they will perform all intentions. Some Authors have limited us a time to dreſs with this or that Medicament; *viz.* to uſe Digeſtives to the fourth day, from that time to deterge to the ſeventh, and to incarn to the fourteenth day. But herein you muſt make uſe of your own judgment, perſiſting to cheriſh the native heat. If the Wound penetrates to the *Dura mater*, you muſt conſider the force of the Weapon, & make haſte to relieve the Parts under the *Cranium*. Yet a day or two before the Battel of *Worceſter*, a Gentleman attending the Earl of *Derby* in his Retreat thither received a large Wound between the Sagittal and Coronal Sutures by a Sword, it cutting through the *Cranium* to the *Dura mater*. The Membrane was covered with the ſmall Shivers of Bones. He had only a thin linen Cap over it, his haſte not permitting him to be dreſſed. And it may be it was the better for him: for if Doſſils had been haſtily crowded upon the Bones, ſevere Symptoms would have followed; whereas the Shivers lying lightly upon the Membrane, he was free, and being ignorant of his danger, rid a great Journey. I after took them out, and dreſt the Membrane with Digeſtives the ſhort time we were together. But when Fractures are made with Bullets or Slugs, there the Hairy ſcalp and pieces of the *Cranium* are driven in together upon the *Dura mater*. In which caſes you muſt preſently lay open the Hairy ſcalp, and raiſe it up with the Bones, and relieve the oppreſt Membrane. If the Flux of bloud be great, cleanſe it with a Sponge dipt in Red wine or Vinegar, and dreſs it as hath been ſhewed. If the Opening in the fractured *Cranium* be not ſufficient, make one in the moſt declining part, and raiſe up the Bones, and free the Membrane of whatever may offend it. But do not take out more Bones than needs muſt: like ſome of thoſe Chirurgeons I have met carrying them about in their Pockets, boaſting in that which was their ſhame. For if you look well upon ſuch, you may ſee many of them were corrupted by the Matter through the ignorance of the Chirurgeon. For recent Fractures of the *Cranium* do frequently unite like thoſe in other Parts, if the Matter hath liberty to diſcharge from within. Therefore having raiſed up the Bones that are looſe, dreſs the others dry with Catagmaticks, *&c.* and take care that they be

Obſervation.

Gun-ſhot.

be not overgrown with looſe Fleſh, and they will happily agglutinate.

It ſometimes happeneth in great Concuſſions, that we lay open the Hairy ſcalp; and though we diſcover neither Fiſſure nor Fracture, yet we perforate the *Cranium*, to relieve the Patient: but if notwithſtanding the Symptoms of *Coma* or *Paralyſis* do not remit, you may ſhrewdly ſuſpect the Extravaſation of bloud lieth deeper. For it ſometimes happeneth in Concuſſions, that the extravaſated bloud lieth between the *Dura* and *Pia mater*, and otherwhile amongſt the Ventricles of the Brain. In which caſes, if the Perforation of the *Cranium* relieve them not, you muſt make Apertion through the *Dura mater*; and if the bloud lie between it and the *Pia mater*, it may haply be diſcharged. How that is to be dreſt, I ſhall ſhew you preſently: but for the moſt part, the long retention of Matter ſpacelates the Brain; and as the Patient ſuffered from the beginning under the ſevere Symptoms of *Coma* or *Paralyſis*, ſo he dies at laſt Convulſive.

In theſe Wounds of the *Dura mater* the Lenients of *ol. roſ.* or warm Pigeons bloud are proper: they are anodyne, and digeſt. *Ol. hyperic.* and Maſtich are alſo good mixt with Reſin. *Fabr. ab Aquapendent.* cites *Galen*, and he *Archigenes*, as dreſſing theſe Wounds with *ſucc. calaminth.* and afterwards ſprinkling *pulv. milii* on the Membrane to incarn it; the *milium* moderating the heat of the other. He delivers them to us as *ſiccantia, detergentia*, and *incarnantia*. The Unition and Incarning of the Lips of the *Dura mater* is performed by a Fleſhy ſubſtance that ariſeth upon the Membrane, which afterwards, as it increaſeth, doth unite them, and overſpreading that part groweth up to the *Cranium*, and unites with that *Callus*, (after Exfoliation of the Bone,) and becomes one body with it, filling up the place that was perforated, and in time groweth more firm than the Bone it ſelf. But the while you muſt be careful that your Lenients make not the Fleſh too lax by their greazineſs; for ſo a *Fungus* will thruſt out thence, which may be vexatious to you. This in the beginning may be prevented by Deſiccants, and waſted by *Mercur. præcip. pulv. cort. granat. balauſt. roſ. rub.* or *alumen uſt.* alone. But if it grow very big, it muſt be taken off by Ligature. Yet to tell you truly, I never met with any ſuch like diſturbance as is repreſented to us by Authors; nor ſhall you, if you uſe your Deſiccants timely. For the Vitriol-ſtone takes this off with little pain, and diſpoſes the Part to cicatrize, if it be uſed with moderation and timely.

The *Pia mater* is (as I have elſewhere ſaid) a moſt delicate fine Membrane, and adheres ſo cloſe to the Brain, that it can ſcarce be hurt without a Wound in the Brain it ſelf: which Wound is for the moſt part mortal, partly for that the Membrane is full of Veins, and ſubject to great effuſion of bloud; partly alſo becauſe the Brain being expoſed to the Air, is thereby over-cooled, and corrupting groweth fluid, and is thruſt forth by the contraction of the *Meninges*, (or Membranes,) which are irritated by the conſtant pain they ſuffer from the putrefaction of the Brain; and ſo it happeneth that it worketh out at the Wound. So long as any remaineth in that Ventricle, you muſt make way to theſe Wounds by removing the ſhattered Fleſh and Bones: but if they will not come eaſily away, leave it to Nature, leſt the Patient die under your hands, and you be thought to haſten his death. Your Dreſſings muſt be with *Galen*'s Powder and Hares-fur *cum albumine ovi* upon Pledgits, to reſtrain the Bleeding, and retain the Brain within its bounds. Apply over them your Dreſſings, as in the Wounds of the *Dura mater*: remembring in all theſe Gun-ſhot Wounds to cut off the ſhattered Lips of the Hairy ſcalp, leſt a Gleet drop from them upon the *Meninges* and Brain, and heighten the Accidents. If the Brain be retained within its Membranes, the *Pia* and *Dura mater*, Note.

and

and they digeſt and incarn, then you may proceed in the reſt of the Cure as in Fractures of the *Cranium*, as hath already been ſaid.

In all Hurts of the Head, what ſort ſoever they be of, the Body is to be emptied; and the rather, if there be *Plethora* or *Cacochymia:* for in ſuch Habits of body Humours are more apt to ſtir up ill Symptoms. Therefore you ought timely to let them bloud in the Neck or Arm on the ſame ſide; and repeat Bleeding according to the exigency, and the ſtrength of the Patient's body. Alſo Cupping (with or without Scarification) of the Neck and Shoulders, with Fontanels under the Ears, is neceſſary. Then lenient Purgatives, ſuch as may evacuate the ſerous bloud, which by reaſon of its tenuity and heat readily flies to the affected Part. Theſe Purgatives muſt be ſuch as have been propoſed in the Fourth Intention of Wounds in general, to which I refer you. Cordial Species and Electuaries may be proper, if they be proportioned to the Temperature of the body, hotter or colder, as there are Fever or other Accidents joyned with the Malady; in which caſes Juleps and Emulſions are neceſſary. Vulnerary drinks are ſometimes in uſe here, if they be fitted according to the nature of the Part. The Ingredients for theſe are *beton. artemiſ. caryophyll. primula veris, lilium convallium, ſalvia, hyperic. ſanicula, veronica, plantag. flor. roſ. rub. nuc. moſchat.* &c. as in the Chapter forementioned. Of theſe you may make Drinks with Wine and Water, or ſmall Ale: ℞ *ſanic. beton. veronic. artemiſ. an.* ℥j. *conſ. roſ. rub. caryophyll. an.* ℥ß. *tormentill.* ʒij. *coquantur in aq. font. & vini Rhenani an.* ℔ij. *vaſe clauſo in B. M. colentur per manicam Hippocratis.* Give ℥iv. of this morning and evening. Or take a few of each of theſe Plants well dried and cut, boil them, and then ſweeten the Decoction with Honey or Sugar to the Palate of the Patient, and give him a Diſh of it to drink twice or thrice aday. You may aromatize it with Sanders, *caſſia lign.* or *ſaſſafras*, &c.

Externals. The external Applications have been already ſet down all along as I treated of the ſeveral Accidents befalling the Head, whether made by Contuſion, or Wound affecting the Hairy ſcalp, *Cranium*, or *Meninges* of the Brain. Yet for the more confirmation of the young Artiſt, I ſhall make a ſhort repetition of what I have delivered concerning the Application of them, that he may not ſtagger in following the Doctrine here ſet down. I ſhall alſo ſupply you with more variety of Medicaments, that you may not be to ſeek for choice elſewhere.

In every Contuſion of the Head, whether a Wound be joyned therewith or not, it will be neceſſary that in the firſt place you defend it from the Influx of Humours; and your Medicaments thereto ought to be refrigerant and exſiccant, to contemperate the heat, and dry up the Humours already extravaſated. To which purpoſe *Hippocrat.* preſcribeth this: ℞ *far. hord.* ℥viij. *ol. roſ.* ℥iv. *coct. in aceto ad conſiſt. Cataplaſmatis.* In Winter he added *flor. roſ. rub. pulv.* ʒij. decocted in Wine. Others have ſince added *bacc. myrtill. & balauſt.* the more to corroborate the relaxed Part. Before the application of theſe the Hair muſt be ſhaved, and the Head and ſides of the Neck embrocated *cum album. ovi, ol. roſ. & aceto.* If there be a Wound with it, you ought to digeſt it with that *ex terebinth.* or this; ℞ *terebinth. Venet.* ℥iij. *ol. hyperici* ʒvj. *thuris* ʒij. *vitell. unius ovi, Miſc.* or that of *far. hord. cribrat. ol. roſ. & vitell. ovi.* Theſe ought to be ſpred upon Pledgits, and dipt *in ol. lumbric.* hot. The Fluxion reſtrained, apply Diſcutients in the form of Cataplaſms, Cerots, or Emplaſters; as *empl. Vigonis, de beton. de gumm. elemi, de matriſſylva, cerat. iſidis:* or, ℞ *ſucci beton.* ℥ij. *ol. roſ.* ℥iv. *maſtich. myrtillor. an.* ℥j. *pingued. hirci* ℥jß. *coq. ad ſucc. conſumption. colat. adde gumm. elemi, takamahac. an.* ʒx. *terebinth.* ℥ijß. *ceræ alb. q. ſ. iterum bull. ad conſiſt. Cerat.* or, ℞ *gumm. elemi* ℥iij. *opopanac.* ℥ij. *bdellii* ℥ß.

℥ß. *resin. pin.* ℥j. *ceræ q. s. fiat Ceratum.* In all Wounds of the Head *gumm. elemi* is much commended; it mitigates Pain, and corrects the evil Temper of the Part by a peculiar virtue it hath thereunto. *Fabr. ab Aquapend.* commends this Emplaster: ℞ *beton. virid.* Mviij. *contund. contus. add. ol.* ℔iv. *ceræ, terebinth. an.* ℔ij. *coquantur, & exprimatur; colat. adde succ. beton.* ℔j. *iterum coquantur ad succ. consumption. pro usu.* And after Digestion of the Wound you may deterge with such like; ℞ *terebinth.* ℥iij. *mel. ros.* ℥ij. *succ. plantag. apii, an.* ℥jß. *coq. ad succor. consumpt. dein adde far. hord.* ℥j. *sarcocollæ* ℥jß. And afterwards incarn, by adding *myrrhæ, mastich. aloes, an.* ℥ß.

If the Contusion were without Concussion or Wound, and through want of timely repelling it, it apostemate, treat it with Lenients, *viz. ex rad. althææ, flor. melilot. far. hord. vitell. ovor. & ol. ros.* And if it suppurate, open it, and dress it as aforesaid, with Digestives, Detersives, *&c.*

If the Scull be fractured, lay it bare by cutting, and raising up the Hairy scalp, fill the Wound with Dossils, and apply over it the Cataplasm of *Hippocr.* or such like, embrocating *cum ol. ros.* &c. as hath been said. At the second dressing, digest it with *ol. ros. cum resina*, as before is directed. But if it be sanious, deterge with *mel. ros. spir. vini*, &c. as you see cause, and dress the Lips of the wounded Scalp with this or the like: ℞ *terebinth. lot. in aq. salviæ* ℥j. *ol. ros.* ℥jß. *gumm. elemi cum oleo super ignem solut. & colat.* ℥ß. *croc. pulv.* ℈j. *vitell. ovi* ℥j. *Misc.* By the speedy Digestion of this Wound you will facilitate your Cure.

After Digestion, *spir. vini* will be found of good use, it having such a siccant quality as is requisite for these Wounds, not only of the *Calvaria*, but of the *Meninges*, either alone upon Lint, or mixed with *mel. ros.* or *syr. de ros. sicc.* Or use this following; ℞ *spir. vini* ℥vj. *myrrhæ* ℥ß. *aloes* ℥j. *sarcocoll. thuris, an.* ℥ij. or this Balsam; ℞ *spir. vini* ℔jß. *vin. malvatici* ℥xvj. *myrrhæ, thuris, an.* ℥x. *pulv. rad. consolid.* ℥j. *pulv. centaur. min.* ℥jß. *flor. hyperici pulv.* ℥ß. *terebinth.* ℔ß. *infund. in balneo S. A.* apply it warm upon the *Meninges*. If the *Dura mater* have changed its colour, and do not deterge with what is proposed, then ℞ *terebinth. lot. in vin. alb.* ℥iij. *mell. ros. spir. vini, an.* ℥j. *myrrhæ, aloes, sacchar. alb.* ℥ij. *Misc.* If these Wounds tend to Putrefaction, scarifie the Lips of them, and apply this or such like; ℞ *Mithridat.* ℥vj. *theriac. Venet.* ℥ij. *mell. Ægyptiac.* ℥j. *pulv. scord. myrrhæ, an.* ℈j. *spir. vini q. s.* The Putrefaction got off, you may then dress with this *Johan. Andrææ à cruce*: ℞ *ol. terebinth. Venet. mell. ros. p. æq.* apply it warm. All these Medicaments are to be applied upon a Sindon to the Membranes. A Sindon is a piece of Silk or fine Linen cut round proportionably to the Perforation made in the *Cranium*, and is to be placed under the edges of the *Cranium* by the Lenticular Instrument, that those edges of the fractured or perforated *Cranium* hurt not the *Dura mater*. A Thread or Silk must be fastened to it, to pull it out at pleasure. Apply over it soft Dossils of Lint, to fill up the void space in the Bone, thereby to keep the *Dura mater* from rising above it.

Spir. vini of what use in these cases.

In Wounds of the Membrane of the Brain and the Brain it self, ℞ *succ. beton.* ℥iv. *succ. calaminth.* ℥ij. *flor. centaur. min.* Pjß. *hyperici contus.* ℥ji. *vini odoriferi* ℔j. Infuse these three days, then boil them to the consumption of the Juices; strain it, and add to it *terebinth. claræ* ℥iij. *gumm. elemi dissolut. in spir. vini* ℥ij. *ol. hyperici* ℥jß. *mell. ros.* ℥iv. boil these a little, then add *pulv. myrrhæ, aloes, sang. dracon. thuris, an.* ℥j. *Ol. Aparici* prescribed in Wounds in general is an excellent good Medicament in recent Wounds of the *Meninges* of the Brain. *Fabr. ab Aquapend.* proposeth this in Wounds of the Brain: ℞ *far. milii* ℥ß. *ol Aparici* ℥j. *Mithridat.* ℥vj. *balsf. Peruvian. ex Ægypto* ℥iij. *spir. vini* ℥v. and if it require to be more desiccant, he adds * *olei de chalcantho* ℥jß.

* Quære, whether the dose of Chalcanth. be not mistaken, at least if by it be mean ol. vitriol.

Drop this (ſaith he) warm and your Digeſtives over the Wound, then embrocate the Head and Parts about with *ol. roſ.* and lay this Emplaſter over all; ℞ *far. hordei* ʒviij. *pulv. cham.* ʒiv. *pulv. ſpicæ, ſchœnanth. an.* ʒiij. *pulv. beton. ſtœchad. an.* ʒij. *ol. maſtich.* ℔ß. *ol. roſ.* ʒiv. *oxymel. ſimpl.* ʒv. *vini alb. potent. q. ſ. fiat Emplaſtrum.* If the Bone be carious, and do not readily exfoliate, you ought to rugine it, and dreſs it with *liniment. Arcei.* If that be too relaxing, ℞ *ſpir. vini* ʒx. *myrrhæ* ʒj. *aloes* ʒjß. *rad. peucedan. ariſtoloch. cort. thuris, an.* ʒß. *pulver. & miſceantur pro uſu*; apply it upon Doſſils. In dry Bodies this; ℞ *pulv. aloes, pumic. uſt. pomphol. an.* ʒij. *myrrhæ* ʒj. *pulv. oſtr. combuſt.* ʒij. mix them with *mel roſ. & ſpir. vini*, and apply this Emplaſter over all; ℞ *ceræ, reſinæ pin. gum. ammoniaci, elemi, an.* ʒvj. *terebinth.* ʒiij. *pulv. myrrhæ, maſtich. ariſtoloch. rotund. ireos, aloes, opopanac. euphorb. an.* ʒj. *ol. roſ. q. ſ. fiat Emplaſtrum.* After the Wound is incarned, you may cicatrize it with one of theſe, or ſuch like: ℞ *plumbi uſti cum ſulphure & loti, litharg. aur. an.* ʒij. *antimon. uſt. & loti, ceruſſæ, an.* ʒj. *ol. roſ. q. ſ. fiat Unguentum*; or, ℞ *calcis putaminum ovor. calcinat.* ʒß. *alum. uſt.* ʒj. *croci Martis* ʒj. *fiat Pulvis.* Thus I have ſet you down variety of Medicaments, whereof you may fit your ſelves according to the exigency of the caſe. I ſhall now ſhew you ſome of my work, wherein I uſed but a few.

1. Obſervat. of Contuſion, without wound or concuſſion.

I Was ſent for to a young fellow who had been ſhrewdly cudgell'd about the Pate. He was ſick in bed, and dozed with the pain. I looked upon his Head, and ſaw it ſwell'd in ſeveral places: ſome of the Swellings were big and pappy, abounding with extravaſated *Serum*. I preſently looked for the Jugular Veins, and ſeeing them full, I opened the faireſt, and took away at leaſt a dozen ounces of bloud: then cauſed the Hair of his Head to be ſhaved off, and embrocated all his Head, Neck and Jaws with a mixture of *ol. roſ. myrtill. acet. cum album. ovor.* and applied a Cataplaſm over all his Head of *far. hord. fabar. flor. roſ. rub. balauſt. bacc. myrtill.* decocted in Oxymel. A Clyſter was that evening adminiſtred, and an Anodyne draught diſpoſed him to reſt that night. The next morning I was informed he had ſlept at times, but I found him hot, and his Pulſe quick. I opened the other Jugular Vein, and ſeeing him bleed with a full ſtream, I permitted it to flow proportionably: then having a Fomentation ready of Claret-wine wherein had been infuſed *flor. roſ. rubr. balauſt. nuc. cupreſſ.* &c. I took off Dreſſings, and ſtuped them, and thought to have opened one of theſe Tumours; but ſeeing it diminiſhing, I forbare, and embrocated his Head again *cum ol. roſ. myrtill. & aceto*, and applied the Cataplaſm as before. By theſe Applications I dried up the Humour in a great meaſure before the ſeventh day; then added ſome Cephalicks to the former Ingredients, and boiled them in Wine and Water, with which I cauſed his Head to be fomented, and afterwards applied *Vigo*'s *Cerat. ad contuſ.* During the firſt ſeven days I permitted him only Water-grewel or Panado, and kept his Body ſoluble by Clyſters; but afterwards gave him more liberty, and purged him: by which method he recovered, without any manner of laying open. And thus all external Contuſions may be happily cured.

2. Obſervat. of Contuſion with an *Ecchymoſis* opened.

A Perſon of Quality, aged between thirty and forty years, by accident of a Fall out of her Coach bruiſed her Head a little above the right Temporal Muſcle. She was ſtunned with the Fall, but did not vomit. She was dreſſed by ſome of her Servants with ſuch Medicaments as thoſe of her own Sex adviſed. About fourteen days after, being indiſpoſed, ſhe came to Town, and ſent for me. I ſaw a large *Ecchymoſis* remaining, and a Tumour of the bigneſs of a Pheaſant's egg: it was ſoft, and ſeemed to be full of a corrupt *Serum*. There appeared no hopes of diſcuſſing it, and yet it was not ſafe to permit it

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to lie longer so near the Bone. Wherefore I applied a mild Caustick upon it, & dividing the Escar gave vent to the *Serum* and some Clots of grumous bloud; then fomented it with Wine, and dressed it up with a Dossil spred with a Digestive *ex terebinth.* and *unguent. basilic.* over it upon the Escar, and embrocating the Parts about with *ol. cham.* applied *empl. diapalm.* with Compress and Bandage. At the next opening I saw the Ulcer well digested, and no part of the Bone bare; nor was it painful in the time of dressing or afterward: yet from the first day I dressed her, she usually fainted the while, & put us upon a necessity of laying her down in her Bed some time before we had finisht our Applications; where after she had lain an hour or two very sick, she recovered again, & walked about her Chamber very well. Her Friends and Relations, who visited her often, and saw her thus distempered, suspected it to arise from the Wound; but I supposed it Vapours, and prevailed with her to consult a Physician. The Physician being come, I took off Dressings, & shewed him the Ulcer well digested, and disposed to heal, without the least sign of ill: the Physician also concluded so. But before I had dressed her up, she fainted, & was carried to her Bed sick. These Faintings increasing, her Physician began to suspect it proceeded from the Contusion; but her recovering again so well afterward, confirmed him that they were Vapours, and that by Purging she would be relieved. She complied, and was moderately purged once in 3 or 4 days, whereby she was somewhat freed of these Fits, and I had liberty to cicatrize the Ulcer. After which I made her a Fontanel in her Leg, and she retired to her House in the Country, where she took Physick, and recovered perfectly well. If these fainting Fits had proceeded from the preceding Contusion, they would not so have intermitted and gone off as they did.

3. Observat. of a contused wound.

A person of about 36 years of age was wounded upon the Road by a Blow with a Spintree-bar upon the *Os frontis*, near the Coronal Suture, about the length of two inches. I cleansed the Wound with a Sponge, and clipt the Hair away: then putting my Finger into the Wound, I felt the *Pericranium* sound and smooth; and seeing no Symptoms in the Patient of Fracture or Concussion, I brought the Lips of the Wound close together, dressed them with a Digestive *ex terebinth.* upon Pledgits with an *empl. è bolo*, and Compress over it, putting him on a linen Cap, and his Peruke over that. I forbare to let him bloud that night, in consideration that he had bled much upon the Road. The next morning, finding him in good temper, I did neither let him bloud nor dress him; but the day after I took off Dressings in the presence of Dr. *Cox* and Dr. *Walter Needham*. The Wound seeming near closed, I applied a Stupe or two wrung out of Red wine, and dressed him with *liniment. Arcei.* The second day after I viewed it again, and seeing the bruised Flesh between the Lips of the Wound cicatrizing, I dressed them with *unguent. tutiæ*, and continued to do so every other day. During his Cure, he kept his Chamber, and was healed in very few days; whereas if his Wound had been fill'd with Dossils, a Fever would have followed, and other Accidents which would have confined him longer to his Chamber.

4. Observat. of a wound betwixt the Sagittal and Coronal Sutures.

A Coachman being wounded with a Rapier to the Bone between the Sagittal and Coronal Sutures about an inch in length, the next Barber dressed him, and called in a young Chirurgeon to help him. They (as they said) felt a Shiver of the Bone cut off, and sticking in the *Pericranium*; whereupon they divided the *Pericranium*, and laid the Bone bare, filling the Wound up with Dossils. The fellow being of a full Body, and the bloud fermenting, a Fever followed, and the seventh day the Lips of the Wound and the Parts about were inflamed and swelled. They then dressed the Bone with Dossils dipt in *spir. vini & mel. ros.* and deterged before they had digested; by which the Bone

was ſtained, and a neceſſity followed of exfoliating it: whereas ſuch an inciſed Wound might have been incarned by *liniment. Arcei.* But this practice will not want thoſe that will defend it: and who can help it?

5. Obſervat. of a large wound of the *Calvaria.*

A poor Woman near *Ludgate* coming out of her Chamber one night, and pulling the Door to her by the Key, it ſlipt out, and ſhe tumbling down Stairs, cut and raiſed up the Hairy ſcalp from the beginning of the *Lambdoïdes* downwards. I cauſed the Hair to be clipt and ſhaved away from about the Wound, and cleanſed it from the bloud, then brought the Lips cloſe together by three or four Stitches, embrocated the Parts about *cum album. ovi, aceto, & ol. roſ.* and dreſſed her up with Agglutinatives, applying over all *empl. è bolo* and Bandage; then gave her an Anodyne draught, and left her to reſt. The next morning I took off my Bandage and *emplaſt.* and embrocated the Parts about with *ol. roſ. cum aceto*, applying a Cataplaſm *ex farin. hord. & fabar.* decocted in Oxycrate, and adding *ol. roſ.* I took away a little bloud by opening a Vein in her Arm, and preſcribed her a Clyſter of Milk and Sugar that afternoon. I continued the Cataplaſm morning and night, but dreſt not the Sutures till the third day; and by that time the Tumour being diminiſhed, and the Wound inclined to Agglutination, I dreſt up the Wound again as before. At the next opening I cut out the Stitches, and dreſt the Wound with Sarcoticks and *empl. beton.* over all, in ſtead of the Cataplaſm; and in a few days cured her of that Wound by Agglutination.

6. Obſervat. of the *Calvaria* torn off.

A Young fellow, Servant to a Horſe-courſer, was thrown off his Horſe againſt ſome of the Bars in *Smithfield*, whereby the *Calvaria* or Hairy ſcalp was torn up from the Coronal Suture to the Temporal Muſcle, on the left ſide; the Scull was bared between two and three inches in breadth. He was led to the next Barber, who cut the piece off, and hanged it up in his Shop. The day after the Patient was brought to me. I cauſed the Hair to be ſhaved off from about the Wound, and dreſt the Bone and Lips with *liniment. Arcei* warm, embrocated the Parts about *cum ol. roſ. & chamæmel.* and applied *empl. è bolo* over the Wound, with Compreſs and Bandage rowling up his Head. He had been let bloud the day before, without conſideration of the great quantity which he had loſt from his Wound. I continued the former way of dreſſing the Wound and Bone, until they were well digeſted: during which the edges of the Bone incarning round, I raſped the middle of the Bone, and thereby diſpoſed a *Callus* to put forth. After Digeſtion, I deterged with *mundif. Paracelſi*; and as the *Callus* thruſt off the Bone, I dreſt it with Pledgits dipt in *ſpir. vini* preſt out dry, and afterwards by Epuloticks, as *unguent. tutiæ*, &c. cicatrized the Lips of the Wound even with the *Callus* which roſe from the Bone; and about that time, to diſpoſe it the better to cicatrize, he was purged. Thus it was cured as Wounds with loſs of Subſtance; a troubleſome and vexatious work to the Patient and Chirurgeon; which might at firſt have been cured by Agglutination, with a leſs *Cicatrix*, and thereby he might have enjoyed the natural tegument of his Hair, whereas now that part remained bald and unſeemly.

7. Obſervat. of a contuſed wound.

A Servant of the *King*'s, of about 28 years of age, being diſtracted, and ſuſpicious that every man he ſaw would do him a miſchief, walking abroad one day, thought himſelf purſued, and ran into the next houſe up 2 pair of Stairs into a Chamber, when hearing ſome body following him he threw himſelf out of the Window juſt as a Coach was paſſing by, and pitcht with his Head upon one of the Wheels. He was taken up ſtunned and ſhrewdly wounded, carried into the next houſe, and dreſt by a Chirurgeon, who alſo let him bloud. The next day I was ſent by his *Majeſtie*'s command to take care of him, and ſaw the Dreſſings taken off. His Wound was between the Sagit-

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tal and Coronal Sutures to the Bone, with great attrition of the Hairy ſcalp. I conſidering the manner of his Fall, with the Frenzy and Stupour he lay under, opened his Wound by a croſs Inciſion, and cutting off the corner'd Lips, dreſſed it up with dry Doſſils of Lint, with Aſtringents and Bandage. I directed a Clyſter to be adminiſtred that afternoon, and let him bloud that night, repeating it again the day after. Dr. *Walter Needham* preſcribed him an Emulſion of the cold Seeds, *&c.* to drink often in a day. By all which he was notably relieved, and recovered his Senſes ſoon after. I opened his Wound the third day, and ſaw the *Cranium* ſmooth and natural, the Lips alſo tending to Digeſtion. I fomented it with a Stupe wrung out of Claret-wine, and dreſt it up with a Digeſtive *ex terebinth. cum vitello ovi*, and embrocating the Parts about *cum oleo roſ.* applied *emplaſtr. diachalcith.* with Compreſs and Bandage. After I had thus digeſted the Wound, I raſped the *Cranium* to the quick, dreſſing it up with *unguent. Arcei*, and the Lips of the Wound with *unguent. diapompholyg.* and by the help of the Vitriol-ſtone I deterged them: and as the *Callus* grew up out of the *Cranium* to unite with the Lips, I dreſſed it with Pledgits preſſed out of *ſpir. vini*, cicatrized it, and reſtored him cured.

8. Obſervat. of a great contuſed wound.

A Cook-maid, by the fall of a Jack-weight upon her Head, was beaten down, and ſtunned for ſome while by the Blow: ſhe vomited, and was carried into her Chamber. There were three Wounds in the Hairy ſcalp to the *Cranium*, with a great Tumour. The Bone ſeemed to me to be depreſt and fiſſured. I preſently made a circular Inciſion, and raiſed up that part of the Hairy ſcalp in order to Terebration, and filled up the Wound with Doſſils of Lint preſt out of Red wine; then embrocated her Head with *ol. roſ. cum aceto*, and put on an *empl. è bolo* with Compreſs: then ſhaving the Hair from the Parts about, I applied Pledgits ſpred with my Digeſtive upon the Lips of the Wound, Compreſſes dipt in Oxycrate, and rowled up her Head. Some hours after I cauſed her to be let bloud about eight ounces, and that night gave her ʒvj. *ſyr. de meconio* in a draught of *aq. papaver.* with a little *aq. cardiac.* The next day I took off Dreſſings, and viewing well the bare Bone, I found neither Depreſſion nor Fiſſure. I was deceived by the ſhape of her Head, ſhe being double-crowned, the Tumour great, and the Sagittal Suture running underneath. I fomented the Parts affected with *vin. rubr.* wherein were decocted *flor. roſ. rub. cham. flor. beton. ſummit. abſinth. bacc. myrtill.* &c. then dreſt the Bone and Lips, the former with *liniment. Arcei* warm, and the latter with my Digeſtive *ex terebinth.* dipt in *ol. hyperici* warm: and having embrocated her Head well with *ol. roſ. & cham.* I applied a Cataplaſm *ex farin. hord. pulv. balauſt. & roſ. rubr.* decocted in Oxycrate *cum ol. roſ.* with convenient Bandage. This method I continued till the Wound was digeſted, and the Tumour waſted. Then I deterged the Lips of the Wound with *mundif. Paracelſ.* and the Vitriol-ſtone, dreſſing the Bone with Sarcoticks, and applied over all one of *Vigo*'s Cerots in ſtead of the Cataplaſm. By this method the Bone incarned; after which ſhe retired with Medicaments to be dreſt by ſome of her Fellow-ſervants at her Maſter's houſe a few miles off. She ſometimes came to Town, and was aſſiſted by me in the cicatrizing of the Wound, ſo as hath been ſhewed in the former Laceration of the *Calvaria*. I did not believe ſo great a Blow could have been without a Fracture and great Accidents; otherwiſe I ſhould not ſo preſently have raiſed off the Hairy ſcalp.

9. Obſervat. of concuſſions on the Forehead and Face.

A Tradeſman returning from viſiting ſome of his Friends in the Country, near *Knights-bridge* fell off his Horſe to the ground, bruiſing and wounding his Forehead and Face. He was taken up as dead; but ſome while after recovering life again, they put him into a Coach, and brought him to his houſe.

I found

I found him in his Bed labouring under a great Concuſſion. He was not capable of giving any account of his Ailment. His Face and Noſe were much bruiſed; there was alſo a Wound upon the *Os cribriformis*. I cauſed the Bloud and Gravel to be waſht out of his Wound, and with my Knife laid it open a little higher up towards the Forehead. Then viewing the Bone, and ſeeing it without Fiſſure, I brought the Lips cloſe together, and dreſt the Wound with Agglutinatives, and *empl. è bolo* over it and his Face; and having cauſed the Hair to be ſhaved off the fore-part of his Head, from the Coronal Suture down to his Ears, and embrocated the diſeaſed Parts with *ol. roſ. cum aceto*, I applied a Cataplaſm of *farin. hord. pulv. flor. roſ. rubr. balauſt. bacc. myrtill.* decocted in Oxymel, then let him bloud 10 or 12 ounces. A neighbouring Phyſician viſited him that night, and preſcribed him what he thought neceſſary. The Patient lay dozing all that night, groaning frequently, and was no better in the morning: he ſpake not willingly to any of us, nor ſo as we could underſtand what he ſaid. That day I took off Dreſſings, viewed and felt the Parts about. The left Eye was inflamed, the Lid ſwelled, and the Forehead bruiſed. I was not able to make out any thing whereby I might take new indications; and therefore dreſt him up again as before, ordering a little Breaſt-milk to be dropt warm into his Eye, and renewing the Embrocation and Cataplaſm. That day he was let bloud again, and a Clyſter adminiſtred, with what elſe his Phyſician thought neceſſary. The next day he being nothing better, the deceaſed Mr. *Boun* a Chirurgeon was conſulted. We took off Dreſſings, and viewed the Wound. The Bone was fair, without the leaſt impreſſion. Mr. *B.* concluded that the Wound ſhould be cured without farther enquiry into it; which accordingly was done in few days after without Exfoliation. Bliſtering of his Neck and Shoulders, and Cupping with Scarification was made; alſo Fontanels behind his Ears; Fomentations and Plaiſters were likewiſe applied to his Head: but the relief was ſmall. Yet by theſe and frequent Purging, after a month or ſix weeks, he was ſo well as to get abroad, but was indiſpoſed in his Head. His Eye was cured; but after he had followed his affairs abroad ſome weeks, on a ſudden that Eye-lid fell down, and ſome months after he loſt the ſight of the Eye without any outward ſoarneſs, it being the effect of the Concuſſion. He was alive at the time of the Fire, and may be ſo ſtill for ought I know. If ought was omitted for his Recovery, it was farther Bleeding.

10. Obſervat. of another Concuſſion, with a broken Leg.

A Gentleman of about 30 years of age, coming out of *Hartford-ſhire* through *Tottenham*, & riding upon the Cauſey near an Inn, one emptying a Chamber-pot out of the window as he was paſſing by, his Horſe ſtarted, and ruſhed violently between the Sign-poſt and a Tree which ſupported part of the Sign. The poor Gentleman was beaten off his Horſe, & lay ſtunned on the ground. The people fetcht immediately a Barber-Chirurgeon from *London*. Sir *T.B.* upon notice of his Friend's miſhap, ſent me thither; where I found the Gentleman lying upon the ground, the people and Chirurgeon gazing upon him. I felt his Pulſe much oppreſt, the right Brow bruiſed, & inquired whether they had let him bloud. The Chirurgeon replied, he had opened a Vein in his Arm, but it would not bleed. I replied, We muſt make him bleed, though it be by ſlitting his Veins. Turning his Head on one ſide, I ſaw the jugular Vein on the bruiſed ſide turgid, and opened it. He bled freely. After I had taken about twelve ounces, the bloud ran down from his Arm, which had been opened before and would not bleed. We bled him till he came to life, and then he raved and ſtrugled with us. Having ſtopt the Bleeding, we cauſed the people to carry him into the Inn, and put him into a Bed. All the while they carried him, and were making him unready, he roared and was very unruly

ruly, especially whilst they were pulling off his Stocking from his right Leg; which inquiring more particularly into, we found broken short in the middle of the Thigh-bone, close by a bony Wen, (of the bigness of a Tennis-ball.) Upon sight whereof we prepared Dressings, and endeavoured to set the Fracture. He opposed us mainly in the setting of it, and dressing it up. But some of the people holding him down in his Bed, we set and dresst his Leg as is shewed in the Lecture of Simple Fractures. But his Hands being at liberty, he loosened the Bandage which we had put on the fractured Bones in spight of our resistence. We contented our selves in what we had endeavoured, and from that time left his Leg to lie unset, he not permitting so much as a Plaister over it. We then prepared Applications for his Head, shaved the Hair from that side of the Temporal Muscle, embrocated the part which seemed to us affected *cum ol. ros. & aceto*, and applied a Cataplasm of Bean-meal (which was speediest to be had) boiled up with Oxymel, *&c.* he permitting it patiently. That bound on, I left my Assistent to stay with him, and returned my self to *London*. The next day Sir *T. B.* sent for Sir *Charles Scarburgh*, and carried us with him to *Tottenham*, where we found the Patient raving, and by their report he had done so all night. We understood not one word he spake. His Pulse was low and intermitting. Upon which consideration Venæsection was deferred. What was necessary for him to take, the Physician then prescribed. His Bruise was upon the Temporal Muscle, a Part not to be laid open upon a bare Surmise; wherefore we renewed our Embrocations and Cataplasms, and left my Assistent to wait upon the Patient, Sir *Charles Scarburgh* making a Journey farther into the Country. The next day I returned, and finding the Patient raving as I had left him, I supposing his Distemper proceeded from an Inflammation of the Membranes of the Brain, and that by Venæsection only he was to be relieved, I let him bloud on the same Jugular as before about 10 ounces, and so proceeded every day, or second day at least, the Patient bearing it well, and seeming to be relieved. His Pulse rose upon it, and he slumbered sometimes, and took his Nourishment, which before he did not. About the seventeenth day I coming to *Tottenham* met my Assistent going to *London*, who told me that the Patient was grown more sensible of his fractured Thigh. I perswaded him back, rejoycing to hear that the Gentleman was so well: but coming near his Chamber, I heard him hallowing. It troubled me what to do. I knew his Bleeding had much relieved him; but the people, as also my Assistent, disliked my so often letting him bloud, and was wont abusively to say, Now you shall see our Master let him bloud again: they concluding that I would be the death of the Patient. However I resolved to bleed him once more, and no more. This I declared, with the necessity of doing it, and accordingly opened the same Vein again, and held a white Stone-porrenger to receive the bloud, which flowed with a sprightly stream, the Patient lying quietly the while upon his Back. I put the Porrenger into my Assistent's hand, and seeing the bloud flow with much Vigour, I catcht up hastily a Pewter-porrenger, purposing to take a little in that. (In bleeding these Veins in the Neck, we usually holding the Porrenger close to their Neck, it serves us as a Bandage to intercept the descent of the bloud.) I put this Porrenger into my Assistent's hands, with pretence to make Dressing to lay upon the Vein; but stood at a little distance, looking my Patient in his Face, with a resolution to bleed him until I saw his Countenance change: which I did, and then stept to the Patient to stop the Vein. The while the Porrenger was taking away, the bloud ran out of it on one side, it having been melted, and the hole so covered by Soder that I did not see it before. During the while he was bleeding I thought him long, and wondered

A great bony Wen.

to

to ſee ſo little bloud in that Porrenger from ſo full a ſtream: but ſeeing the Bed ſo bloudy, it was evident that when the melted hole preſt not againſt his Neck, the bloud ran into the Bed, which deceived me. But the Patient upon taking a little of his cordial Julep refreſht his Spirits. I ſate a while by him, and left him pretty hearty. The next day I returned ſooner than I uſed to do, being doubtful how I ſhould find him: but, to my wonder, he was perfectly well in his Senſes, and diſcourſed ſoberly of what paſſages he remembred in the time of his *Delirium*. We preſently prepared to ſet his fractured Thigh-bone, it having lain ſeventeen days unſet, yet was without Inflammation, Tumour, or Pain. The *Callus* I ſuppoſe was thruſt out at the ends of the Bones, and that had covered the aſperity of them, and the large Bleeding and Diſeaſe had made Revulſion and Evacuation. We brought the ends of the Bone together by an eaſie Extenſion, and dreſt it up as is uſual in ſimple Fractures. In leſs than twenty days the *Callus* dried, and his Leg was ſo ſtrong as to bear him again; and ſome weeks after he went abroad about his affairs.

11. Obſervat. of a Fracture with a long Fiſſure and depreſſion of the *Cranium*.

A Youth about ten years of age was ſtruck down by a blow of a Cudgel on his Head. I found him lying upon a Bed deprived of his Speech and the uſe of his Legs. Taking the Plaiſter off his Forehead, there was no Wound nor conſiderable Swelling; but ſearching with my Fingers I felt a Depreſſion of the Bone: upon which having adverti ſed the Parents of the danger of the Child, & the way of my proceeding, I ſent for the Chirurgeon dwelling at the next door, who had applied the firſt Plaiſter, deſiring to retain him for the more conſtant attendance. We made Dreſſings ready in order to Dilatation; then cauſing the Hair to be ſhaved off, I made an Inciſion ſo large as to ſet on the *Terebra*, if occaſion ſhould be, for the raiſing up the depreſt Bone. In dividing the Hairy ſcalp towards the Coronal Suture, I eſpied a Fiſſure running up from the fractured Bone beyond my firſt Inciſion; wherefore I laid the Fiſſure more open, out of which I ſaw a quantity of ſerous bloud flow immediately forth. The Depreſſion was a piece of Bone as broad as a Three-pence ſunk under the Scull. I filled up the Opening with Doſſils of dry Lint, and applied over all a Digeſtive *ex terebinth. & vitell. ovi* upon Pledgits, and *empl. è bolo*, with Bandage to keep them on. The next day in the preſence of Dr. *Barwick* and ſome Country Phyſician with Mr. *Arris* Chirurgeon, I took off the Dreſſings, and ſet the Trepan above the fractured Bone, ſo to avoid the great Scar that muſt have been if I had ſet it below the Fracture, and conſidering withal the Porineſs of the Bone below. The *Terebra* ſet on, the Bone taken out, and the inner edges ſmoothed by the Lenticular inſtrument, I put in a Levator, and raiſed up the depreſt Bone even with the reſt: that done, I placed in a Sindon dipt in *ol. roſ.* with a third part of Reſin; then with a round Doſſil filled up the Bore: after which I opened the Fiſſure with my Rugines, ſcraping away its edges, that no *Sanies* or Matter might be detained, and dreſt up the Bone with *liniment. Arcei* warm, ſo as to give way to the Lips to fall in; I deſiring no more Opening than was neceſſary for diſcharge of the Matter from within. Over theſe Dreſſings I applied *empl. diachalcith.* malaxed *cum ol. roſ. & aceto*, and with Compreſs and Bandage concluded the ſecond Dreſſing. From that time all our threatning Symptoms vaniſhed. Indeed the firſt Opening and letting bloud that ſame night recovered his Speech; and after this Dreſſing the uſe of his Legs was alſo reſtored: yet we kept him in the dark, and to a ſlender Diet, allowing no Fleſh. What concerned Internals Dr. *Barwick* took care of. The other Phyſicians and Mr. *Arris* coming no more, I continued the ſame method in my dreſſing until Digeſtion, which was made in 4 or 5 days. Then I added *mel. roſ.* in ſtead

of

of the Oil, and afterwards incarned, by increasing the Resin and lessening the *mel:* the Flesh rising in little grains presently after the Digestion was compleated, and after a few days covered the *Dura mater*. I hastened the Exfoliation of the Bones by the application of *tinctura myrrhæ*, and deterged the wounded Lips with *mundif. Paracelsi*. My work being afterwards to keep down the loose Flesh, I rubbed it frequently with the Vitriol or Alume-stone, and dressed the Lips with *unguent. tutiæ*, &c. whereby in less than six weeks the Bones exfoliated, and the Wound being ready to cicatrize, I left it to the neighbouring Chirurgeon; the cicatrizing of these being for the most part the work of my Servant.

12. Observat. of a contused wound by a Puncture in the Crown.

A person was wounded near the *Vertex* (by a Blow I told you in the former Edition, but have been since informed it was) by a Puncture of a Dagger. He sent for a Chirurgeon, who drest his Wound and cured it; during which the Patient went daily abroad without any consideration of it. About the seventeenth day, towards the Full-moon, as he was coming home one morning, he felt his Legs faulter, and before he was got up stairs into his Chamber his Tongue failed him. His Friends and Servants put him into bed, and sent for me. They declared to me how he had been wounded such a day, and the manner of his being seized with the *Paralysis*. I saw a necessity of laying open the Hairy scalp, and offered to go away, that I might send for some of my Servants to help me. He apprehending that I was leaving him as deplorable, catcht hold of me, and would have spoke to me, but could not. He made Signs for Pen, Ink and Paper, and endeavoured to write, but could not form one letter. He then threw himself down in his Bed, breathing out *Jes.* I prayed his Patience, telling him I would return suddenly. But before I went I let him blood ten ounces, and returned again within an hour, and found that he had lost the use of his Arms. I considered the Wound, and concluding a necessity of setting on a Trepan, I caused his Head to be presently shaved, and made a circular Incision about the Wound. Then raising up the Hairy scalp smooth off with my *Spatula*, I both saw and felt the Bone, but could discover no fault in it. I dried up the blood with Spunges dipt in Vinegar, raised up the Lips round with my *Spatula* from the Bone, and with a fresh Spunge having dried up the blood, I looked again under them; but could discover nothing ill in the bared *Cranium*. I then fill'd up the Wound with Dossils of dry Lint, and applied a Digestive *ex terebinth.* over the Lips, embrocating the Parts about *cum ol. ros.* and laid on a Cataplasm *è farin. hord. flor. ros. rubr. balaust. in vino rub.* with *syr. de ros. sicc.* &c. That day Sr. *Fr. Pruj.* gave him a visit, and prescribed him a Clyster, Cordialls, Juleps, and what else he thought necessary. The next day was Full-moon, at which time the Brain is thought to rise high, and the Vessels are turgid; wherefore I deferred the setting on the Trepan, contenting my self with the letting him blood again. All this while he was in a Feaver, and deprived of his Speech and Lims. The next morning, between 10 and 11 of the clock, in the presence of Sr. *Fr. Pr.* Serjeant *Pyle*, Mr. *Arris* and Mr. *R.* who thought himself concerned for his Servant, and had first drest him, I took off Dressings, and lookt into the Wound. We found no Fissure, however there was a necessity of perforating the *Cranium*. Wherefore without delay I began to work with the Trepan, which I much prefer before a Trephine, it being an Instrument which doth its work lightly, and cutteth the Bone equally, or how you please, without pressing so heavily upon the Head, and is approved by all the Chirurgeons abroad, being much to be commended before the Trephine. After I had bored the Bone, and taken it out, I lookt into the hole, and seeing the *Dura mater* retaining its natural colour, without Matter or Blood, I drest it up with a Sindon dipt in *ol. ros.* with a little Resin warm. This way of dressing was objected against, as I expected;

but I dreſt it up, and aſſured them that I would cure this Patient without applying any other Remedy to the *Dura mater* than theſe two ſimple Medicaments: but withal, I was much unſatisfied in my ſelf, that ſuch grievous Symptoms, as loſs of Speech and Lims, with a Fever, ſhould afflict the Patient, and yet no depreſt Bone or Fiſſure, nor ought of Matter or *Sanies* appear upon the *Dura mater*. This, I ſay, troubled me much, I fearing ſome other place, or that the blood lay putrefied under the *Dura mater*. But I dreſt it up with a ſoft round Doſſil next the Sindon, and the Bone with *liniment. Arcei*, continued the Digeſtive to the Lips of the Wound, and applied an *empl. de beton. mag.* over all, then laid him down in his Bed. Going preſently out of his cloſe Room (where I was crowded up with great Lights burning near me) into the freſh Air, I preſently burſt out with a violent Coughing of blood: yet the next day I dreſt the Patient again, and found his Speech and Lims reſtored; but he was hot, and his Pulſe quick. I opened his Wound, and finding all as well as I could expect, I dreſt up the *Dura mater* again as before, with the ſame Oil and Reſin: and after I had bound him up as is uſual in theſe caſes, I let him blood 10 Ounces, and adviſed the repeating of Clyſters, *&c.* as occaſion ſhould offer. The Phyſicians and Chirurgeons viſited him no more after the firſt Dreſſing; but I retained the young Chirurgeon that had firſt dreſt his little Wound, he dwelling near the Patient. After three or four days dreſſing, this Wound digeſted, and all the Symptoms went off. Upon which conſideration I diminiſhed the quantity of the *ol. roſ.* and increaſed the Reſin; making good my word in curing him with thoſe ſimple Medicaments; I deterging and incarning as firmly and ſpeedily this way as by any Sarcotick I ever uſed. While the Bones were caſting off, I cicatrized the Lips as hath been ſet down in the preceding Obſervations. Coming one day to dreſs him while the Wound was cicatrizing, he being abroad, I ſubſtituted the young Chirurgeon in my place; yet I ſaw him twice or thrice dreſſed afterwards. He was well cured, and remaineth ſo to this day.

13. Obſervat. of a Concuſſion of the Brain.

I was called to conſult with Dr. *Tho. Cox* about a Gentlewoman who was grievouſly diſeaſed with a great Pain between the Coronall and Sagittall Sutures, occaſioned by a Blow ſhe had many months before received riding under a Pent-houſe. The Blow had ſtunned her, yet ſhe recovering her Senſes was brought to *London*, and viewed by ſome Chirurgeons of the City, who cured her little Wound, and returned her back: but from that time her Pain increaſed daily with a *Vertigo*, and ſhe returned again to *London*. We judged it to ariſe from that Blow, and concluded the extravaſated and putrefied Blood had cauſed that Pain. We viewed the Hairy ſcalp, and took notice that it was thicker in the upper parts of it than was uſuall; but we could not diſtinguiſh with our fingers any inequality under it in one part or other. The Humour was pituitous and yielded to the preſſure of the Finger, as ſuch Swellings do. She endeavoured to point to us the place with her Finger, but could not fix it within ſo narrow a compaſs as we might certainly relieve her by laying it open. At that Conſultation we reſolved to begin with Fomentations and Cataplaſms to diſcuſs the Humour, and to make Derivation by Bleeding, Cupping, Bliſtering, and Purging: all which was afterwards done; but proving ineffectual, we propoſed the laying open that part of the Scalp which appeared to us moſt ſuſpicious, and to ſet on a Trepan: but ſhe would not admit of it. At length, feeling her ſelf languiſhing, ſhe yielded to the making a Fontanell in the Part moſt affected by a Cauſtick. Which I did, and by Dr. *Cox*'s conſent I made it to the Bone, and ſo large, that I might afterwards ſet on a Trepan; and then dreſſed it with Lenients. After ſeparation of the Eſchar, there appeared neither Fracture nor Fiſſure. We moiſtned the Bone with Ink, and rubbed it out again: but no mark of the Ink remaining,

ning, I raſped it; and no Crack appearing, I ſprinkled the Bone with *pulv. myrrh. aloes*, &c. and dreſt the Ulcer with *baſilic.* &c. Her Pain increaſing, with other Indiſpoſitions which threatned her life, ſhe yielded to the application of a Trepan; which accordingly I ſet on, and opening the Scull, found the *Dura mater* retaining its natural colour, but a ſmell aroſe from within as in corrupt Wounds of the Brain. I dreſt it up with Lenients as the former, *viz. ol. roſ.* and a little Reſin. The next day I dreſſed her again, and found the Wound digeſting; yet was ſhe extremely ſtupefied with the exceſs of pain in her Head. The third day I dreſt her again, and in the Opening found good Digeſtion, and a beginning to incarn, a little red Fleſh ariſing upon the *Dura mater.* The next day it was increaſed, and ſo the next: but when I opened it a day or two after, I found the Lips of the Wound ſinking, and little Matter; but that wich appeared was of good colour. The *Dura mater* ſeemed drier, the little ruddy Fleſh was not increaſed. The next day the little Fleſh upon the *Dura mater* beginning to look pale, I then left off the *ol. roſ.* and added *mel. roſ.* to the Reſin, with a little *pulv. myrrhæ*, and a few drops of *ol. terebinth.* and dreſt the Lips of the Ulcer with *unguent. baſilic. mag. Vigon. cum ol. terebinth.* warm, laying over the bared *Cranium* Lint dipt in a Tincture of Myrrh, Aloes, *&c.* and applying *empl. melilot.* with a good Compreſs wrung out of a *Lixivinn* wherein was boiled ſome of the greater Cephalicks, as *flor. anth. beton. majoran. origan.* &c. But that night ſhe was ſeized with Convulſions, and the next day after the Lips of the Wound appeared without heat; all things looked ill; and ſhe died within a day or two after. We would have opened her Head, but ſhe had forbid it: but in bowing her Head a putrid Matter of a brown colour flowed forth her Noſtrills, of the ſame ſmell that I complained of in Trepanning the Bone, only more fœtid. I believe this Putrefaction proceeded from the corrupt blood extravaſated between the *Pia* and *Dura mater*; which at firſt by large Bleeding and proper Applications might have been relieved. Nay poſſibly, if we had timely opened the *Dura mater*, this Matter might have there diſcharged it ſelf. But if it had been attempted, and not ſucceeded, her Death would certainly have been imputed to that.

14. Obſervat. of a large Fiſſure, the *Dura mater* putrefied.

A little Girl was brought to me with a ſoft Swelling upon the left ſide of her Head, about two fingers off the Temporal Muſcle, of the bigneſs and ſhape of half a great *French* Walnut. This Swelling happened from a Fall down a pair of Stairs ſome weeks before: but, whether through ignorance or negligence, the Fracture was not ſuſpected by them, though there were viſible Symptoms of a Concuſſion, as that of Vomiting, *&c.* The Child even languiſhing of it, I acquainted the Mother, that the only way to relieve her Child was by opening that Tumour wide, and afterward I ſuppoſed that there required as much to be done to the Scull underneath. She prayed my help and ſubmitted to the laying open the Swelling, or what elſe I ſhould think fit to be done. The way of opening this in a ſtronger Body had been, to have cut round the Tumour, and raiſed off the Skin: but the Child was ſo weak, that I feared it might the while die under my hands. Wherefore to avoid that danger, I applied a mild Cauſtick, and delivered the Child to her Mother, who bound on the Dreſſings, and carried her home. About two hours after I took off the Cauſtick, and finding it had workt well, I divided the Eſchar, and diſcharged about three or four Spoonful of a filthy *Sanies*. I took off this Cauſtick the ſooner, ſuſpecting leſt it might by longer lying penetrate through, and offend the Parts within. Upon dividing this Eſchar, the Bone appeared bare the whole length, and a long Fiſſure ran tranſverſe over from the Temporal Muſcle backward: the Scull was very thin, yielding to the leaſt preſſure of my Finger, as a piece of Vellum; ſo that I might have inlarged it with my

Knife, if I had thought it neceſſary. I bowed the Child's Head on one ſide, and dropt in a little *mel roſ.* with a few drops of Tincture of Myrrh, Aloes, *&c.* and with Pledgits dipt in the ſame lightly covered up the Bone. Then dreſt up the Eſchar with *unguent. baſilic.* malaxed *cum oleo liliorum*, and laid a cephalick Emplaſter over all, with convenient Bandage. I continued the ſame method of dreſſing daily, and ſaw pieces of the *Dura mater* purge out, and hang in the fiſſured edges of the Bone; and for ſome while a thin *Ichor* iſſued thereout. The Eſchar being ſeparated, I dreſt the Lips with *mundif. Paracelſi*, and the Bone with *liniment. Arcei*, dropping into the Fiſſure the Balſam preſcribed by *Vigo*; by which it incarned, and, as the Bone exfoliated, united with the Lips of the Ulcer. There was a Tumour behind the Ear before I began the Cure: but by embrocating it with *ol. roſ.* daily, it went off after the Digeſtion of the Ulcer above. Thus this Infant was cured: but ſhe being the product of a diſeaſed Mother, grew lame about a year after of a Pain in her right Hip, whether it happened by accident of a Fall, or that it was Strumous; but when I ſaw it, it was diſlocated. I ſuppoſe no rational man will believe this Accident on her Head occaſioned that Defluxion on her Hip.

15. Obſervat. of *Caries* through the *Cranium*, wherein the *Pericranium* and *Dura mater* were grown together.

A Gentlewoman fell down with her Child of half a year old in her Arms. The Mother was hurt, and the Child a little ſcratched on the left ſide of its Head. It was viewed by ſome Pretender to skill in ſuch things, and judged inconſiderable: but from that time the Child grew indiſpoſed, and vomited often, eſpecially after the receiving her ſuſtenance; and as ſhe grew able to ſpeak, complained of a pain in that part of her Head; and by reaſon of her often vomiting and conſtant pain in her Head, ſhe languiſhed daily. After 10 years, a ſmall Tumour appeared in that part of the Head where it had been hurt. They again conſulted, and afterwards brought the Child to me a very Starveling. I viewed the Tumour, and felt in it a Pulſation, which at firſt I thought an *Aneuriſma:* but preſſing my Finger more into it, I felt the Membrane of the Brain without any Scull the breadth of an old *Engliſh* Shilling. This at firſt a little amazed me: but upon conſideration of the Fall, and the Symptoms ſucceeding, it was evident to me that by the Fall the Scull was fiſſured, and being of a thin cartilaginous ſubſtance at that time of her Infancy, had through continuance mouldred away; and the *Dura mater* thruſting outwards, had by Adhæſion to the *Pericranium* united in one body with it. This I ſuppoſed the caſe. The Preſage here was a ſudden death, if the Cure was not attempted: and in the attempting it ſhe was in great danger. To begin this Operation by a circular Inciſion, the compaſs of the Tumour in the Scull, was not difficult: but then to ſeparate theſe two Membranes, the *Dura mater* from the *Pericranium*, or this from that, was an hard task even in a dead Body; here in a weak Child much more, where the blood would be apt to blind me, and the impatience of the Child render it hazzardous, the work of Separation requiring a great Steadineſs in both of us. Wherefore I reſolved to lay the Scalp open by Cauſtick. To which purpoſe, I forewarned them firſt of the danger, either in leaving the Child to die by its Malady, or in attempting the Cure doubtfully. But they having conſulted others before, were ſenſible of the danger the Child was in by its Diſeaſe, and readily commended her into my hands, and lodged her near me. I cauſed the Hair to be ſhaved off from the Tumour, and applied upon it the moſt gentle Cauſtick I could deſign. At ſuch time as I thought it might have made its way through the Superficies of the *Calvaria*, I took it off, and with a Cauſtick-ſtone rubbed into the muſculous Skin; then waſht out the Salts well, with Wine firſt, then Milk. After that I embrocated it with warm Oil, and cut into the Eſchar, embrocated the Part again, and dreſt it up *cum unguent. baſilic.* with *ol. roſ.* applying *emplaſtrum è bolo*

over

over all, with Compreſs and Bandage. That night ſhe was ſeized with a fit of Convulſion, frequently vomited, and was very ill. Doctour *Fiſher* was fetcht, and preſcribed her a cordial Julep proper in her caſe, and relieved her. The next morning I took off Dreſſings, and raiſed up the Hairy ſcalp round from the Scull ſo far as the Cauſtick had ſpred, which gave a breathing to it, and diſcharged a little *Ichor*. From that time her Vomiting ceaſed, as alſo the Convulſive fits, and ſhe began to be more lively than in ten years before. We kept her in bed warm and cloſe, and preſcribed her a ſlender Diet, allowing her only Spoon-meats. Her Phyſician took care in what concerned her health by Internalls. I proceeded to haſten Digeſtion, and by Fomentations and the like to cheriſh the native heat of the Part. Some places I digeſted, others I deterged. It was a nice work, but ſucceeded happily. Whilſt ſome Sloughs were ſeparating, other parts incarned and cicatrized. The Patient at length being in a fair way of Recovery, I invited Sir *Ch. Scarburgh* and Doctour *Walter Needham* to ſee her dreſſed. The *Dura mater* was then incarned, and the edges of the Bone exfoliating; after which the Wound cicatrized, and contracted to a very narrow compaſs. The Child afterwards returned to her Friends perfectly in health, and is a witty Child; but it's thought ſhe will be but a Dwarf.

16. Obſervat. of a large Fiſſure by contuſion without a wound.

A Perſon of Honour about ten years of age, by accident of a Fall from his Horſe, bruiſed his Head on the right ſide a little above the Temporal Muſcle. He was ſomewhat ſtunned by the Fall, and vomited. Going to him within an hour after, I felt a large Tumour in that place, and, judging the Scull to be fractured, propoſed the laying it open. But the Phyſician not being come, I opened the Jugular Vein on that ſide, took away ſome ounces of blood, and prepared Dreſſings. Doctor *Lowre* being come, I laid open the *Cranium* by a circular Inciſion, and diſcovering a Fiſſure, filled up the place with Doſſils of dry Lint, *pulv. Galeni & empl. è bolo*, with Compreſs and Bandage over all. The next morning we found our Patient relieved; a Clyſter was adminiſtred that day; and the day after, the Phyſician and Mr. *Hollier* being preſent, we took off Dreſſings, and ſaw a large Fiſſure ſtretching from the Coronall Suture to the Temporal Muſcle. The Seroſity being diſcharged thereby, and the Patient freed from the preceding Symptoms, I did not think it neceſſary to ſet on a Trepan: but it being by others thought reaſonable, to prevent farther diſpute, I complied with them. But then the Patient's Relations and Friends deſired to be informed what Inſtruments we would uſe, and asked to ſee them. I ſhewed them a Trepan and Trephine, and gave them liberty to try both upon a Scull. They did ſo, and unanimouſly preferr'd the Trepan, which accordingly I ſet on in the declining part, ſomewhat diſtant from the Fiſſure; and after Perforation dreſſed the *Dura mater* with *ol. roſ.* and Reſin, the *Cranium* with dry Lint, and the Lips with a Digeſtive *ex terebinth.* &c. then embrocated the Parts about, and applied *empl. è bolo* with Bandage. By the application of theſe the *Dura mater* digeſted, and ſoon after incarned. But the Seroſity diſcharging by the Fiſſure, the Evacuation by the Perforation of the Trepan was ſmall, and thought not ſufficient. I being deſirous to juſtifie my way of dreſſing, yet ready to comply with the common practice, dreſſed it up with *mel roſ. & ſpir. vini*. But the Matter at next dreſſing appeared leſs; and the day after we found the ruddy Fleſh upon the *Dura mater* pale and withering. I applied again the *ol. roſ.* and Reſin, and at the next dreſſing ſaw the Fleſh ruddy and better digeſted; and after a dreſſing or two the Membrane ſo incarned, that I was glad to keep it within compaſs by the application of a Doſſil of dry Lint: and from that time my buſineſs was to ſuppreſs it with *Merc. præcipitat.* and good Com-

preſſion.

preſſion. During this the *Cranium* was dreſt with Pledgits preſt out of *ſpir. vini*; and while the Bone was exfoliating, we deterged and cicatrized the Lips, diſpoſing them to incarn with the Fleſh riſing from the exfoliated edges of the Bone. At length the Bone changed colour and ſhook. It appearing afterwards looſe, I raiſed it up with a *Spatula*, and took it off; we ſuppoſing it an Exfoliation. But by the Pulſation in the Fleſh under, it appeared to be both Tables of the *Cranium*. If you will ask the occaſion of this, I muſt tell you, that, according to our judgments, it was the effect of the Contuſion, of which there indeed appeared no marks: yet without doubt, by the force of the Blow the heat was extinguiſhed in the Bone, and as a dead Bone it ſeparated. And this ſort of Contuſions is taken notice of by the Ancients. It is without danger to the Patient, if there be a ſufficient Diſcharge otherwiſe for the Matter, as here there was by the Fiſſure. This Pulſation leſſened as the Fleſh grew callous and hardened, which it did ſoon after into a Bone. About which time the fiſſured Bone caſt off its edges, and that Fiſſure incarned, and ſupplied the place of the Bone; the Wound alſo cicatrized by the common Epuloticks. This young perſon had formerly been ſubject to pains in his Head and frequent Vomiting from his Infancy, upon which account we did not haſten the cicatrizing it; but after Purging, *&c.* we cicatrized, and he enjoyeth a better health ſince.

17. Obſervat. of a Fiſſure with a Fracture and depreſſion of the *Cranium* under the temporal muſcle.

A young Fellow, a Maſon by Trade, being at work with others making a Stack of Chimneys three Stories high, the Foundation of the houſe ſunk under him. He was taken up ſpeechleſs; but being preſently let blood by a Noble Lady's advice, he recovered his Senſes, and was removed to his Lodging. The Part contuſed and ſwelled was the right Temporal Muſcle, and that ſide of his Head. He vomited often, and had ſhrewd Symptoms of a Fracture. I cauſed the Hair to be ſhaved off, and made an Inciſion in the upper part of the Tumour, from his Ear forward, above two inches in length, paſſing as near the Temporal Muſcle as I durſt; and having at the ſame time divided the *Pericranium*, I thruſt it off from the Bone; then with a Sponge preſt out of Red wine wiped away the blood, and ſaw a Fiſſure running the whole length of the Wound. I alſo eſpied another Fiſſure ſtretching from this downwards towards the externall *Canthus* of that Eye; and the lower I preſſed with my Finger, the more rough the Bone felt. I was unwilling to cut the Temporal Muſcle; but there ſeeming to me a neceſſity of it, I drew my Knife downward, and laid open the Wound in the form of a Roman T. But the lower Lips, being muſculous, would not ſo turn back to bare the fractured Bone as I deſigned; therefore I contented my ſelf with what I had done, and filled up the Wound with Doſſils of Lint, embrocating the Parts about with *ol. roſ. cum album. ovi*, and applying *empl. è bolo* over it, with Compreſs and Bandage, then laid him to reſt with an Anodyne draught. The next morning I found the Patient in a Fever. He had reſted ill, and had vomited often, and complained of much pain in that lower Jaw. I took off the Bandage and Emplaſter, and dreſt the Lips of the Wound with a Digeſtive *ex terebinth.* &c. upon Pledgits dipt in *ol. hyperici* hot, embrocating the Parts about with *ol. cham. & roſ.* and applied a Cataplaſm *ex far. hord. flor. roſ. rub. balauſt.* &c. as you may find it deſcribed in the method of Cure. Then we let him blood in that Jugular, and adviſed a Clyſter: a Ptiſan and contemperating Juleps were alſo made him. Having afterwards conſidered of the neceſſity of making more way to the depreſſed Bone, and the danger which might happen by cutting off more of this Muſcle, I reſolved to conſult Doctour *Walter Needham*; to which purpoſe I ſent to him, and he accordingly met me the next day. We found the Patient reſtleſs, and accompanied with an increaſe of all the fore-

forementioned ill Symptoms. We took off Dreſſings, and diſcerned the upper Lips of the Wound digeſted, but the lower more dry and ſwelled, eſpecially upon the lower part of the Temporal Muſcle; upon the preſſure whereof a white Matter diſcharged from within, between the *Cranium* and muſculous Fleſh, where we judged the Depreſſion of the Bone to be. There was a neceſſity of cutting off part of the Temporal Muſcle, and that in the form of a Semicircle: wherefore we marked it with Ink from the upper part, ſo paſſing within an inch or more of the external *Canthus* of the Eye, and carrying it towards the Ear, to take off that Lip which was lying over the Depreſſure. This being ſo marked, we cut it off. There was an effuſion of blood out of both ends of the Arteries: but having Doſſils ready dipt in the Royal Stiptick, we applied them; and having filled up the bared *Cranium* with our Dreſſings, we bound up the Wound. From this time his Jaw was ſo weak, that we were forced to muffle it up with Chin-cloaths. At our next dreſſing we ſet on a Trepan: after which with a Levator we raiſed up the depreſſed Bone, and dropt into that Wound a Solution of *reſina in mell. roſ.* We then dreſt the trepann'd hole with *ol. roſ.* upon a ſoft Doſſil; and the reſt of the *Cranium* we covered with Doſſils preſt out of *ſpir. vini*, and applied Digeſtives over the Lips of the Wound. At the ſecond Dreſſing Doctour *Walt. Needham* was preſent, and ſaw the *Dura mater* under the trepann'd Bone incarned ſo well, that from that time we only applied a little round Doſſil to keep the Fleſh from thruſting out of it. But from the Fracture below much purulent Matter came away daily: we ſuppoſed it was the more increaſed, by reaſon of the hollowneſs which it had made between the Muſcles and fractured Bone, which being depending, did yet retain its Cavity, notwithſtanding our endeavours by Compreſs and Bandage. Therefore to prevent the enlarging of that Cavity, we applied a Cauſtick on the outſide, and the next day divided it; from which time the Matter diſcharged it ſelf that way, and thereby the internal Cavity was diſpoſed to cure. The Fiſſure that ſtretched it ſelf from his Ear towards his Brow did lie ſo undiſcovered, that we neither ſaw beginning nor ending of it; nor did we care: that part of it which we ſaw ſerved to diſcharge the *Serum* ſufficiently. I raſped the *Cranium*, and covered it up with Doſſils dipt in *ſpir. vini*, &c. keeping them cloſe to the Lips of the Wound; and by timely rubbing the aforeſaid Lips and every Superexcreſcence with the Vitriol-ſtone, I kept the *Cranium* dry, and diſpoſed it to exfoliate. After the diſcharge of Matter ceaſed from within the *Cranium*, I left the Exfoliation and Incarning of it to my Servants, viſiting the Patient but ſeldome my ſelf. His Wound was cicatrized in leſs than two months: as indeed they all uſually are, if they be treated as they ought. But if they fall into ſuch ignorant and obſtinate hands, who ſuffer the *Cranium* to be overgrown with looſe Fleſh, a great diſcharge of Matter will follow, and the *Cranium* muſt of neceſſity corrupt, and conſequently the Cure muſt be prolonged.

18. Obſervat. of a Souldier wounded in the Head.

During the Wars I was frequently imployed in the dreſſing ſome one perſon or other, wherein I have ſeen all or moſt of the ſeveral ſorts of Fractures mentioned in this Chapter. Particularly at the Battle of *Worceſter*, a Souldier came to us where we were dreſſing, with his Sword in his hand, the Blade broken off near the Hilt, with many Wounds on his Head. I ſeeing the Hairy ſcalp of one ſide of his Head hanging down his Neck, went to him, and calling my Friend *Will. Clarke* to me with a Spunge to cleanſe the Wound, we ſaw ſix pieces of the Scull ſticking on it: ſome of them were of the firſt Table, others of both Tables. Beſides which there were various Fiſſures, *Sedes*, and ſome Fractures, with Depreſſion, made by Sword, Muſket-ſtock,

ket-ſtock, *&c.* We freed the Scalp of thoſe Bones, and returned it upward ſo far as we judged it neceſſary; then cutting off what was ſuperfluous, tacked it to the ſound parts by ſeveral Stitches diſtant from one another, leaving a ſpace to dreſs the Depreſſion and greater Fractures. Then we dreſſed up the Wounds with Digeſtives *ex terebinth.* &c. and where the *Dura mater* lay bare, we applied Pledgits dipt *in ol. roſ.* and to the other parts of the *Cranium liniment. Arcei.* The Alarm growing hot of the Enemies entring the City, I left *Will. Clarke* to bind it up, and made my way out of the Town. But this young Chirurgeon, being taken buſied in dreſſing the wounded Souldiers, had liberty, after the heat of the Fight was over, to imploy his Charity in dreſſing ſome of them, and writ me ſince this Souldier's particular Caſe: *viz.* The third day he found him pretty hearty, and his Wounds mattering ſo very much, that he was neceſſitated to cut looſe two of the Stitches, to give vent to it: then he dreſſed the penetrating Wounds with *mel roſ.* and the *Cranium* with Lint preſſed out of *ſpir. vini*; and proceeding accordingly in the Cure, ſaw the depreſſed and mangled Bones caſt off, incarn, and cicatrize with the reſt. The Souldier being thus cured by him made a Voiage to the *Indies*, and ſince that ſerved a Souldier in the Tower of *London.*

An Additional Diſcourſe of Wounds of the BRAIN.

Uncertainty of Symptoms in wounds of the Brain.

THE greater Symptoms that are uſually ſaid to attend the Wounds of the Brain do ſhew themſelves more uncertainly than a ſpeculative Chirurgeon would imagine; and in Cuts or Wounds made by ſharp Weapons, or ſudden ſtrong force, more uncertainly than in Contuſions, Concuſſions, and Depreſſions of the Scull; the higheſt of them, *viz.* Vomiting, Stupour, Loſs of ſpeech, with a *Paralyſis* of Legs and Arms, ariſing more ſuddenly in theſe latter caſes than in the former. Theſe Symptoms have appeared in one of the forementioned Obſervations, where there was nothing of Fiſſure or extravaſated blood ſeen upon the *Dura mater* after the terebration or perforation of the *Cranium.* Nay, we ſee many die ſuddenly from a Box on the Ear, and from ſmall Blows or Wounds. In ſome whereof, upon opening the *Cranium*, there hath been much blood extravaſated; in others none at all, or ought elſe that may be thought to have killed the Patient.

Obſervation.

A Young man by reaſon of a Blow with a Cudgel upon the Forehead preſently took his Bed, and became delirous: a *Sopor* followed, and after ſome days he died. I was fetched to ſee his Head opened. In opening his Forehead, I ſaw a ſmall Hair like a Fiſſure running from the great *Canthus* of the Eye upward. We took off the Scull and *Dura matur*, and found but little blood extravaſated, the *Pia mater* as little altered.

Others I have been called to ſee opened, where there had preceeded only a Contuſion of the *Calvaria*, without any Fiſſure, or more extravaſated blood than is uſually ſeen in every opening or taking off the *Cranium:* yet the Patient lay, as I am informed, under all thoſe Symptoms of *Delirium*, *Coma*, &c.

Then

Then again I have dreſt many that have been cut through the Scull, the Shivers of Bones lying paſht with the Fleſh and Hair upon the *Dura mater*; yet the Patient hath been without any Symptom of ſuch a Wound: which I ſuppoſe happened by reaſon of the Bones lying looſe upon the Membrane.

Obſervation. At *Sterling* Mr. *John Chace* was preſent when a poor Servant-maid came to me to be dreſt of a Wound ſhe had received on her Head by a musket-ſhot, in the taking of *Calender*-Houſe by the Enemy. There was a Fracture with a Depreſſion of the Scull. I ſet on a Trepan for the elevation of the depreſt Bone, and for diſcharge of the *Sanies*. She had laboured under this Fracture at leaſt a week before ſhe came to me, yet had none of thoſe Symptoms aforementioned. But after Perforation, and raiſing up this depreſt Bone, and dreſſing her Wound, ſhe went her way, and came daily thither to be dreſt, as if it had been only a ſimple Wound of the Hairy ſcalp. Mr. *Penycuke*, an eminent Chirurgeon of that Nation, did aſſiſt me in this work. I think the Brain it ſelf was wounded. I left her in his hands, who I ſuppoſe finiſhed the Cure.

Obſervation. At the beating up of ſome of our Out-gards near *Truro*, the Enemy purſuing them, a Trouper wounded between the right Brow and Ear, eſpying me amongſt the crowd, importuned me earneſtly to dreſs him, and would admit of no excuſe. We ſtopt at an Apothecarie's houſe on the right hand going out of the Town towards *Perin*. I called to the Apothecarie's Servant to bring ſomewhat to dreſs him. Meanwhile I haſtily lifted up the bloody Hair, and ſaw a quantity of the Brain lie among it. I took it up with my fingers, and ſhewed it him: the ſight whereof ſo calmed his paſſion, that I had liberty to fly from the Enemy, who was entred the Town. Here the Prognoſtick was certain, yet there appeared none of thoſe cruel Symptoms which accompany Concuſſions or leſſer Fiſſures.

Manner of dreſſing the Brain. From Battels and Sieges of Towns and Garriſons we meet with many ſuch Wounds: in them we haſten our way to the extraction of extraneous Bodies, by cutting off the ſhattered Hairy skin firſt, then pulling out whatever was carried within the *Cranium*. If this be well performed, we then dreſs up the Brain and Membranes with a Sindon of Silk or ſoft Linen of a bigneſs proportionable to the Wound, dipping it in a warm Digeſtive, ſuch as is proper for the wounded Membranes. For however Chirurgeons have propoſed to dreſs the Brain with one kind of Medicament, and the Membranes with another; that is not poſſible to be done: for if the Membranes or *Meninges* ſhould be waſht with the ſame Medicament, and be offended by the Acrimony thereof, Inflammation, Fever and *Delirium* will the ſpeedilier follow. Therefore in the Cure of theſe Wounds of the Brain, I conſider the Brain as an inſenſible Body, and that the dreſſing of them conſiſts in keeping it within its Membranes, and treating it as Wounds of the Membranes with Lenients, *&c.* If this can be done, as in ſmall Wounds of the Brain it doth ſometimes happen, (if the Fracture of the Scull hath not been very large,) then the Patient may recover.

But if the Fracture in the Scull be large, and the Wound in the Brain proportionable, ſo that the Brain cannot be retained within them, then it corrupts by reaſon of the external cold, and offends the Membranes by its putrid Acrimony, and is frequently the cauſe of all the ill Accidents that attend them. The Patient ſometimes lives until that Lobe be conſumed, or hath wrought it ſelf forth; as for Inſtance,

1. Obſervat. of a fracture of the *Cranium* by Musket-ſhot. A Few days before the Battel at *Worceſter*, while we were dreſſing the wounded Souldiers, one was brought to us ſhot with a Musket-bullet on the right ſide of his Head. My Servant *William Clark*, now dwelling at *Bridge-*

north, in dreſſing his Wound felt the Shot ſticking deep in the Scull. I haſtened to him, and ſaw the man ſpeechleſs. We laid the *Cranium* bare by a circular Inciſion, and permitted it to bleed awhile; then cleanſed it with a Sponge preſt out of Vinegar, and fill'd it up with dry Lint. After an hour or two, the Bleeding being ſtopt, we opened the Wound again, endeavouring to get out the Bullet: but it not yielding thereto, we ſet on a Trepan cloſe by it in a depending part, and gave vent to a quantity of blood: then paſſing in a Levator we raiſed up the Bullet, and pull'd out the depreſſed Bones, with which there came away ſome blood and a little of the Brain. This being wiped away, there appeared a large Wound in the *Dura mater*. We dreſt it with a Sindon dipt *in ol. roſ. & reſina*, and fill'd up the Cavity with Doſſils of Lint. Having ſo likewiſe dreſſed up the trepann'd Bone, we applied our Digeſtives to the Lips of the Wound, with *empl. è bolo* and Bandage over all. Before we had dreſſed him up, he lifted up his Eyes, and asked how he came amongſt us. Several other things he demanded of us. We cauſed him afterwards to be removed, and continued our care of him. The Wound did digeſt, and ſomewhat of the Brain came away each day; yet his Speech continued: but what became of him after our Defeat, I do not know.

2. Obſervat. of a fractured Scull.

At the Siege of *Melcomb-Regis*, a Foot-ſouldier of Lieutenant-colonel *Ballard*'s by the grazing of a Cannon-ſhot, had a great part of his Forehead carried off, and the Scull fractured into many pieces, and ſome of it driven with the Hairy ſcalp into the Brain. The man fell down as dead, but after a while moved; and an hour or two after, his Fellow-ſouldiers ſeeing him endeavour to riſe, fetcht me to him. I pulled out the pieces of Bones and lacerated Fleſh from amongſt the Brain, in which they were intangled, and dreſt him up with ſoft folded Linen dipt in a Cephalick Balſam, and with Emplaſter and Bandage bound him up, ſuppoſing I ſhould never dreſs him any more. Yet he lived 17 days; and the 15. day walkt from that great Corner-fort over againſt *Portland* to the Bridge which ſeparates *Weymouth* from *Melcomb-Regis*, only led by the hand of ſome one of his Fellow-ſouldiers. The ſecond day after he fell into a *Spaſmus*, and died, howling like a Dog; as moſt of thoſe do who have been ſo wounded. About the ſame time a Maid-ſervant was ſhot into the right ſide of her Head by a Musket-bullet deep into the Brain. She lived ſo long till that Lobe of the Brain wrought out or corrupted.

3. Obſervat. of a fractured Face, Noſe, *&c.*

At the Siege of *Taunton* one of Colonel *John Arundell*'s men, in ſtorming the Works, was ſhot in the Face by Caſe-ſhot. He fell down, and in the Retreat was carried off among the dead, and laid into an empty houſe by the way until the next day: when in the morning early, the Colonel marching by that houſe heard a knocking within againſt the Door. Some of the Officers deſiring to know what it was, lookt in, and ſaw this man ſtanding by the Door without Eye, Face, Noſe, or Mouth. The Col. ſent to me (my Quarters being neareſt) to dreſs the man. I went, but was ſomewhat troubled where to begin. The Door conſiſted of two Hatches; the uppermoſt was open, and the man ſtood leaning upon the other part of the Door which was ſhut. His Face, with his Eyes, Noſe, Mouth, and forepart of the Jaws, with the Chin, was ſhot away, and the remaining parts of them driven in. One part of the Jaw hung down by his Throat, and the other part paſnt into it. I ſaw the Brain working out underneath the lacerated Scalp on both ſides between his Ears and Brows. I could not ſee any advantage he could have by my Dreſſing. To have cut away the lacerated Parts here had been to expoſe the Brain to the Air. But I helpt him to clear his Throat, where was remaining the Root of his Tongue. He ſeemed to approve of my Endeavours, and implored my help by the Signs he made with his Hands. I askt him if he would drink, making a

Sign

Sign by the holding up a Finger. He presently did the like, and immediately after held up both his Hands, expressing his Thirst. A Souldier fetcht some Milk, and brought a little wooden Dish to pour some of it down his Throat: but part of it running on both sides, he reacht out his Hands to take the Dish. They gave it him full of Milk. He held the Root of his Tongue down with the one Hand, and with the other poured it down his Throat, (carrying his Head backward,) and so got down more than a quart. After that I bound his Wounds up. The dead were removed from thence to their Graves, and fresh Straw was fetcht for him to lie upon, with an old Blanket to cover him. It was in the Summer. There we left that deplorable creature to lodge, and while we continued there, which was about 6 or 7 days, he was dresst by some of the Chirurgeons with a Fomentation made of Vulnerary Plants, with a little Brandy-wine in it, and with Stupes of Tow dipt in our common Digestive. So we bound him up.

I could tell you of many more wounded into the Brain, but I think these may serve to prove what I would demonstrate, *viz.* that the Brain is of it self insensible; that those Symptoms which accompany these Wounds proceed from the pain which the *Meninges*, *Dura* and *Pia mater* suffer, which if oppressed by extravasated blood, or a Depression of the Scull, do quickly suffer the greatest Symptoms, as Vomiting, *Stupor*, *Paralysis*, &c. much more if they be pricked by any Speel of a Bone, or other extraneous sharp body. When the Brain it self ouzeth out between them in the manner already mentioned, it is a mild soft substance and lenient to them, so that the Accidents appear not till that begins to corrupt between them, and with it the Membranes themselves putrefie; upon which there follow Convulsions, Howlings, and a dispatch of the Patient. From which very observation may be seen the folly of dressing these Wounds with powerful Desiccatives, which, so far as I could observe, did always hurt the Membranes, but never either digest or incarn the Brain. For, according to *Hippocrates*, *non coalescet*, but as it gets liberty works it self forth not unlike unto Barm. At Sea those wounded into the Brain die soon after, we having no conveniency of lodging them or dressing them so warm as they require. In the Wars my imployment did not permit me to see the finishing of the Cures; and here, in my practice in and about the City, I never was called unto any so wounded where there were any hopes of Cure; therefore must leave that to others to treat of. But by what I have seen of them heretofore, their Cure consists, as I have already said, in dressing them as Wounds of the *Dura mater*, and in keeping the Brain within its Membranes; without which no Incarnation can be made on the Membranes.

A TREATISE OF Gun-ſhot Wounds.

OF
Gun-ſhot Wounds.

The Sixth Book.

CHAP. I.

Of Gun-ſhot Wounds in general.

GReat hath been the contention amongſt the Learned about Fire and Venome in Gun-ſhot Wounds, ſome maintaining the one to be in them, ſome the other; and others holding that there is neither. That which I ſuppoſe might be the occaſion of their ſuſpecting a burning and a poiſonous quality, was the deadly Colour of theſe Wounds, which in thoſe early days, when the invention of Guns was novel, ſurprized them, they looking not unlike poiſoned and burnt Wounds. Where the Bullet pierceth, it extinguiſheth the natural heat, and the Lips of the Wound are livid or blackiſh; and if they be not dreſt rationally, they inflame, and are accompanied with Tumour, and Bliſters frequently riſe about them, alſo the Matter is of a fœtid ſmell. In this condition the Wound is commonly the firſt day, and ſo to the ſeventh; and, if not ſuccoured, it gangrenes, and ſo the Patient commonly dies. If in thoſe days the Learned were thus deceived by their aſpect, and dreſt them as venomous Wounds; it can be no marvel that they ſhould write ſo of them; I verily believing, that in their way of treating them they were directly as poiſoned Wounds difficult to digeſt and cure.

Gun-ſhot Wounds whether fiery or venomous.

In theſe our later times, although they do not call them venomous, yet is it a difficult thing to diſſwade many of our Chirurgeons from dreſſing theſe Wounds with Tinctures of Myrrh and Honey of Roſes, and thruſting in of great Tents: by which way of dreſſing I have ſeen theſe Wounds undigeſted the tenth day; one whereof was in the Cheek with dry and flaggy Lips. Theſe leſſer fleſhy Wounds being undigeſted, at laſt gangrene: and in truth it is not to be wondred at; I will undertake to ſhew you the Experiment every day, and that in a Fontanel or Iſſue made by a Cauſtick. Cut you through this livid or black Eſchar, and put in a Pea in the middle of it, with Tincture of Myrrh and Honey of Roſes, as I have ſeen ſome of them dreſs Gun-ſhot Wounds, and the next two or three days after, when you dreſs it again, it will

Errours in dreſſing Gun-ſhot Wounds.

will be to your ſight not unlike a Gun-ſhot Wound: continue your dreſſing with a Pea, and with your Tincture of Myrrh; and if it do not gangrene, yet it will be inflamed, and ſlow in Digeſtion. And this is from the improper Application in the dreſſing it. For if you dreſſed this Eſchar in the Fontanel with Emollients and Digeſtives, as you ought to do, the Eſchar would ſeparate with Digeſtion in the worſt Habit of body: and ſo it will in Gun-ſhot Wounds with little diſtemper or difficulty, if you have timely extracted the extraneous bodies. But the ignorance in ſome, and the diſcontinuance of others in this kind of Chirurgery, hath occaſioned theſe Errours.

Obſervation. Thus at our entring into *Worceſter*, when the *King* came out of *Scotland* with an Army of that valiant People, a Townſman was ſhot. The Piſtol being fired by the Cheek, ſhot him through his lower Jaw and Tongue, and out at the contrary Cheek. The Chirurgeon of the Town, upon ſight of it, concluded it gangrened from the black colour, and declined the dreſſing it the way he rationally ought: upon which the Part grew exceedingly painful, ſwelled and inflamed; it alſo gleeted much. After two days I was conſulted, and by lenient Medicaments, and good Bandage keeping up the fractured Jaw, I aſſwaged the Pain, and digeſted the Wound, leaving it in the ſame Chirurgeon's hands, who cured it. In this perſon the Wound was burnt by the flame, the very Powder ſticking in ſome parts of his Cheek. This, with the Putrefaction occaſioned by the hot weather, and the improper Applications contributed to our Brother Chirurgeon's apprehenſion. It is this ugly aſpect that puts the inconſiderate Chirurgeon out of his method, and ſo renders Gun-ſhot more difficult of Cure than otherwiſe it would be. For if ſuch Wounds were rationally dreſt, they would digeſt and heal as eaſily as any complicated Wound. What I have ſaid of Gun-ſhot, happeneth at Sea frequently by Splinter, which though it may have loſt its force to make a Wound, yet it ſometimes bruiſeth the Skin to the Fleſh ſo forcibly as to extinguiſh the natural heat, and to make it black. If this be dreſt as a Gangrene with *ſpir. vini* and *unguent. Ægyptiac.* or lapt up with a warm Stupe, the Eſchar will grow dry and parcht, and the Humours which flow plentifully to it will cauſe an Inflammation with Tumour, and an Apoſtemation is the beſt that can be expected underneath the Eſchar, and conſequently it will terminate in a hollow Ulcer; but for the moſt part it corrupts and gangrenes. Whereas if this contuſed Eſchar were dreſſed with Lenients according to that Aphoriſm of *Hippocrates*, *Omne quod contuſum*, &c. and the Parts about embrocated with *ol. roſ. cum album. ovor. & aceto*, and a Defenſative applied over all to prevent Defluxion, the Eſchar would ſeparate as eaſily as thoſe made in Fontanells by Cauſtick, and afterward incarn and cicatrize with much eaſe to the Patient.

Obſervation. Many Inſtances I could give of this kind, but ſhall make choice of one that will give leaſt offence, and that in the outſide of the Leg. It was ſomewhat broader than a Five-ſhilling piece in Silver. How it had been dreſſed on Ship-board I will not inſiſt; but on the Shoar I ſaw it black, and the Pretender to Chirurgery had dreſſed it with *ſpir. vini & unguent. Ægyptiac.* &c. till it was as hard as Shoe-leather, and the circumjacent Parts inflamed and ſwelled. I did not perceive he had ever cut into the Eſchar: if he had, it was ſuperficially done. I adviſed it to be preſently divided, and to be dreſſed warm with *unguent. baſilic. cum ol. lilior.* But he replied, he knew how to dreſs a Gangrene. It was no eaſy task to perſwade him out of his method: but I prevailed, and thereby the Matter was diſcharged, and the Patient more eaſy, and ſooner cured.

CHAP.

Chap. II.

Of the Cure of Gun-shot Wounds; and first, of Extraction of Bullets, &c.

WOunds made by Gun-shot are the most complicate sort of Wounds that can be inflicted: For they are not only Solution of continuity, but have joined with them Contusion, Attrition, and Dilaceration, in a high and vehement kind. To this we may add all sorts of Fractures and Accidents, as *Hæmorrhagia*, Inflammation, *Erysipelas*, Gangrene, and *Sphacelus*; besides the extraneous bodies which are violently carried into the Wound, and multiply Indications. The number of the Indications in compound Affections must answer to the variety of Disturbances. Were it a Simple Wound, the Cure of it would presently be performed (as you have read in the preceding Treatise of Simple Wounds) *per astringentia & exsiccantia*, by such Medicaments as are of an astringent and drying quality. The Cure of a VVound is the Exsiccation of it. But here is always joyned with these that which indicateth the use of *emollientia & suppurantia*; according to that of *Hippocrates*, *Omne quod contusum, necesse est ut putrescat, & in pus vertatur*, VVhat is contused must necessarily putrefie, and be turned into Matter. Compound intentions.

That which is fretted and torn must also be reduced to the whole, or cut off, before your ordinary intention of Incarning. Moreover, in these VVounds, not only the Bullet it self is ordinarily lodged, but many times other strange bodies are carried along with it; for Extraction of which, judicious care and industry are required in you. In these recent VVounds we very rarely have a Flux of blood. Though the Veins and Arteries be wounded, they commonly lie quasht in the contused Flesh, until separation of the Eschar; and about that time, when you least think on it, they may burst out violently. I have seen them thus often break forth. But if such Vessels do bleed upon the receit of the VVound, and interrupt you in drawing out the extraneous bodies, you must endeavour to suppres the Bleeding, for thereupon depends the life of your Patient: But withal so proceed, that you may extract the Bullet first; and then be careful, that in the restraining the Bleeding you bring not on a Mortification by your crowding in Dossils. Too many Instances may be given hereof: Therefore I rather advise you to use an actual Cautery. What is torn is to be reduced to the part, or cut off. *Hæmorrhagia.*

A great Hæmorrhage happening to a Souldier at the Surprize of *Weymouth* by the Garrison of *Portland*, by a shot through the Heel, I endeavoured the stopping the Blood by Astringents, Bandage, *&c.* But after all, I was put to the use of the actual Cautery; which I did apply successfully, and have since seen *Botallus*'s authority for it. *Tutius enim est* (saith he) *eam igniti ferro constringere.* These Wounds are also accompanied with Pain, which ought to be appeased by Anodynes. But you must be well advised in the application, lest you extinguish that small remainder of heat that is left. How you shall deal with all these Inconveniences, and not add one evil to another, Observation. Anodynes.

I ſhall plainly deliver to you. And firſt, what muſt be firſt put in execution; which is, the Extraction of Bullets and other extraneous bodies.

Dreſs preſently during the heat of Battel.

The Part is at firſt dreſſing to be cleared with what diligence you can of all ſuch forrein bodies as have made violent intruſion into it, while the Patient is warm with the heat of Battel, and the Wound freſh, and very little altered by either Air or Accidents: Upon which conſideration leſs Pain muſt neceſſarily follow upon the Extraction.

Neceſſity of it.

In the Armado Naval of *Dunkerk*, where the Chirurgeons were oft imployed in this kind of work, we after every Fight went together viſiting one anothers wounded men. It was thought amongſt us a great ſhame, if any thing of this work of Extraction were then to be done: For after the firſt and ſecond day the Wound proveth tumefied, alſo the neighbouring parts are inflamed, and ſo changed in their temper, that they conceal from your ſight both the Bullet and his companions, ſo that the place they are coucht in can hardly be known; or, being diſcovered, you cannot without hazzard of your Patient, or great trouble of the Part, make Extraction of them. In which caſe it may then be reaſonable to defer that work, and by Lenients to haſten Digeſtion.

Yet if the VVound be near a Joynt, or the Shot lodged amongſt the Tendons, it's much to be feared the Pain will not ceaſe, and conſequently the VVound will not digeſt. In which caſe the omiſſion of drawing out the Bullet may bring a Mortification. It hath been the cauſe of the death of many a brave Souldier, and is the ground of all the miſchiefs theſe VVounds are ſubject to, as Pain, Inflammation, Spaſm, Convulſion, Gangrene, *Sphacelus*; what not? every Battel producing Inſtances of it, to the diſcredit of our Profeſſion. Therefore to prevent the increaſe of ſuch Accidents, neglect not to make Extraction of it one way or other.

But if the Bullet be lodged in a leſs noble Part, as in the Muſculous fleſh, you may with more ſafety content your ſelf until the ſeventh day, or till the fierceneſs of the Accidents be over, and the VVound digeſted. But whithal it will require more care, for the VVound will be more painful, and ſlow in Digeſtion, than otherwiſe it would be. Yet by the confeſſion of thoſe that allow Fire and Poiſon in it, the Bullet may lie long there, and do little harm. Nay, I ſuppoſe there are not many but have heard of or ſeen Bullets, that, without grievance to the Patient, have continued lying long in the Fleſhy parts of wounded men. Conceive this ſpoken of Leaden Bullets; for Iron or Braſs cannot (by reaſon of their aptneſs to ruſt) remain without doing harm. However, let nothing of this encourage you; for the Bullet pierceth not any Part without carrying Rags along with it, which corrupt in the VVound, and make Apoſtemations, occaſioning a prolonging the Cure; as muſt needs be obſerved by all men in their practice.

Obſervation.

The Servant of a Nobleman was wounded and ſhot in the Thigh by High-way-men. The Bullet not having been extracted by his Country-Chirurgeon at the firſt Dreſſing, could not be drawn out by me at the ſecond, but occaſioned great Pain and Inflammation, burning Heat and VVatchings. And although he had many other conſiderable VVounds upon him to make a Derivation, yet was his Gun-ſhot more vexatious than all the reſt, until I extracted the Bullet, and Rags carried in with it: Yet this was but a Piſtol-bullet. But after I have drawn it out, my Digeſtion became good; and by equal Bandage, with gentle Compreſſion of the Parts, I united and healed it in ten or twelve days, which I doubt would not have been cured in three months.

Nay, while any of the Rags remain in the VVound, it will never cure: But the

the extraneous bodies drawn out, there is little difficulty in the healing these Simple Wounds if dreſt rationally.

An Inſtance whereof I ſhall give you in a poor Souldier, who was ſhot at the Caſtle of *Dunbar* with a Musket-bullet a little above the left Clavicle, in amongſt the Muſcles of that *Scapula*. The Bullet was drawn out by one of my Servants, and the VVound dreſt up with Digeſtives. But ſome days after, he being brought to *Saint-Johnſton's*, I found it inflamed, and very much ſwelled. VVe dreſſed it up according to the method ſet down in this Treatiſe: but it apoſtemated, and mattered very much. After ſeveral unſucceſsful Applications, I made an Inciſion by the ſide of the *Scapula* into the Cavity, and pulled out the Rags that had been carryed in by the Shot: And from that time all Accidents ceaſed, and the Wound cured ſoon after. But if ſuch be handled as ſome have lately taught, they are as ſo many poiſoned Gun-ſhot Wounds. Obſervation.

Now for the taking out of the Bullets, and other extraneous bodies, there are two methods. Firſt, one to extract them by the way they went in: The other, to open the way by which they would, if their force had not failed them, have paſſed themſelves through. Two methods of extracting Bullets.

For to take them out the way they were forced in, you muſt place the Patient as near as may be gueſſed in the poſture he was in when ſhot: And if, by reaſon of his weakneſs or other infirmity, he cannot without prejudice be ſo ſituated, let him be laid in a Poſition which may as nearly anſwer it as may be, leſt ſome part of a Muſcle, Tendon or Ligament obſcure what you deſire to make manifeſt. Then make ſearch for them with your Finger or Probe. The figure of theſe Wounds is always round: The Bullet forces the Fleſh in with it, and the place by which it enters preſently contracts cloſer; but its going out is more lax. You may gueſs by view of the Wound the largeneſs of the Bullet; and comparing the one with the other, make choice of a fit Inſtrument for Extraction, wherewith you ought always to be well furniſhed. Your main care in this work muſt be to find out the Bullet: But if you fail of it by ſearching into the Wound with your Probe, then try if you can feel it by handling the Parts about: It being wonderful to conſider how theſe Shots do twirl about, at leaſt ſeem to do ſo, when the Poſture is changed in which the Wound was received. First, the way the Bullet went in. Methods of ſearch.

As for example, a man hath been ſhot in the Cheek, and I have cut out the Bullet behind in his Neck. Another was ſhot in the outſide of the Small of one of his Legs; the whole Member extremely ſwelled and inflamed; no poſſibility of finding out the Bullet either way: At laſt by chance I felt it in the inſide of the Thigh above the Knee. And ſo another being wounded in the outſide of the Arm, I have cut out the Bullet below the *Scapula*. If the Bullet hath not lain in ſo long (as in ſome of theſe caſes) that the Parts are extremely pained with Inflammation and Tumour, the Pain where the Bullet lodges doth ſometimes help to diſcover it.

A common Souldier, ſhot in the Breaſt through the *Sternon*, lay roaring very grievouſly, complaining of a Pain in his Back. I was fetched to him, and turning him on his Side, I ſaw the Bullet lie like a ſmall Wen or *Scrophula* thruſting out under the Skin not far from the Spine. I made Inciſion over it according to the length of the Part, and thruſt out the Bullet as eaſily as I could deſire. Then I dreſſed it with Digeſtives, the Souldier ceaſed his crying, and acknowledged before us his Pain was from the Bullet in the Skin. For indeed the Lungs and other internal Parts are ſeldom ſo ſenſible of Pain, though wounded through. Obſervation.

An Inſtance whereof I ſaw in one run through them with a Rapier. He complained of no other pain than that external one in his Back where the Obſervation.

Sword paſſed out. Sometime after his being cured, he died of another Diſeaſe. I opened him, and ſaw his Lungs ſound, and that the Pain of his Back proceeded from the edge of the Rib, which had been cut by the Swords paſſing out. The Lungs diſcover their hurt by other Symptoms. The common Souldier died, as moſt do that are ſhot through the Lungs.

If in your ſearching for the Bullet you light on the Part, though there be no Extuberance or ought to be felt, yet his Pain there will be a good ſign of it. If no Accidents occaſioned that Pain, make your way there by Inciſion, avoiding the Veſſels, and take out the Shot, and what elſe offers it ſelf. By this you do both quit the Part of its troubleſome Lodger, and withal make way commodiouſly for diſcharge of Matter; which, in regard moſt of theſe Wounds are ſinuous, (the Bullet turning aſide when it is hindred in its journey forward,) for want of diſcharge, might in thoſe places occaſion *Fiſtula's* and hollow Ulcers, not without ill quality.

Obſervation. So a man being ſhot with a Slug near the external *Canthus* of the right Eye through that Bone, it ſeemed to the Chirurgeon that dreſt it to have paſſed directly forwards, and accordingly he crowded in a Tent, and daily increaſed the bulk, to ſtop the Bleeding it was ſubject to. But the Bleeding continuing, I was fetcht, and ſaw him pull out a Tent above an inch and a half long. I caſt in ſome of the Royal Stiptick-water, and ſtopt the Flux of Blood. His Cheek was very much ſwelled, and had apoſtemated on that ſide of his Neck, and diſcharged its Matter two inches lower than the Tumour. I cut afterwards into that Tumour, and felt the Slug: It lay partly under the *Os jugale* or Cheek-bone. It was a wonder to me how it came there; but I drew it out: And from that time his Wound above and the Apoſtemations below cured.

Caution. In the work of Extraction, take great care you lay not hold of ſome Nerve or Tendon, and ſo pluck them along with the Bullet: For by ſo doing you will cauſe intolerable Pain and grievous Accidents. You muſt therefore neither open nor dilate your Inſtrument, until you take hold of the Bullet without any of the circumjacent Parts.

Chap. III.

Of Dreſſing Gun-ſhot Wounds after Extraction.

First dreſſing after extraction. As ſoon as you have made a Separation of theſe extraneous bodies, if you judge the Wound to be ſo well conditioned, that there is neither Putrefaction, nor any thing tending that way, (as in recent Wounds there is not,) be not diſcouraged at whatſoever evil aſpect it then hath, but conſider its livid colour (as I have ſaid) to be uſual in theſe Wounds, where the Contuſion is not only ſimple in the Skin, but through Fleſh and all, as far as the Bullet or Splinter went, extinguiſhing the natural Heat: So no wonder if it hath the colour of a gangrened or poiſoned Wound. Therefore be not diſturb'd in your thoughts, but, having taken out the Bullet or pieces of Splin-

Splinters, dreſs it up as a contuſed Wound with *Oleum Catellor.* or ſuch as followeth, as hot as the Part will bear, not giving credit to any that ſhall perſwade you to the contrary, no, though it be near a Bone; for the Gleet will foul it more than your greazy Medicaments; therefore dreſs it with ſome of theſe: ℞ *ol. lilior. alb.* ℔vj. boil in this two new-whelpt Puppies until the Fleſh fall from the Bones, then add *lumbric. terreſt. in vino lotor.* ℔j. boil theſe a while, then ſtrain them by a gentle compreſſion: To the ſtrained Liquor add *terebinth.* ʒiij. *ſpir. vini* ʒj. Reſerve this for your uſe. Or this: ℞ *ol. lini, cannabin. an.* ʒiiij. *ol. lilior. chamæmel. an.* ʒij. *terebinth.* ʒj. *Miſc.* Or this: ℞ *terebinth. opt.* ʒiiij. *thuris, maſtich. an.* ʒiij. *myrrhæ* ʒj. *ol. Aparici* ʒij. *ol. lumbric. & ſambuc. an.* ʒiij. *Miſc. S. A.* ℞ *ol. olivar.* ℔j. *terebinth.* ℔ß. *gum. elemi.* ʒij. *æruginis pulv.* ʒij. or this; ℞ *ſpir. vini* ℔ß. *terebinth.* ℔j. *ol. hyperici & lini an.* ℔ß. *ſang. dracon. ſubtil. pulv.* ʒj. *Miſc. S. A.*

See ol. Aparici *in Simple Wounds.*

With this latter I cured a ſervant of *A. D.* ſhot into his Hand. This digeſted the Wound; and after the Slough began to ſeparate, I felt part of a Bone bare, which I dreſt with *extract. ſcord.* diſſolved in *mel roſ.* with which I deterged; and feeling the Bone afterward incarned, I alſo incarned the Wound, and cicatrized it with *unguent. tutiæ*, &c. and in few days cured it without any difficulty. *Liniment. Arcei* with any of the above-mentioned Oils is very good, adding a few drops of *ol. terebinth.* which by its ſubtilty penetrates, and by its heat rouzeth the natural heat in thoſe cold Parts, and putteth them upon Digeſtion and Separation.

Obſervation.

Quercetan commends this: ℞ *ſuccorum tuſſilag. oxalidis, an.* ʒiij. *caricas ping. num.* xx. *thur.* ʒij. *reſin. laric.* ʒijß. *axung. gall. anſer. an.* ʒij. *butyri recent.* ℔ß. *ol. viſci pomorum comp.* ℔j. put theſe all together in a veſſel cloſe ſtopt, boil them on a moderate fire the ſpace of ſix hours, then ſtrain them out hot, and evaporate them to a good conſiſtence. This following is another of his: ℞ *ceræ novæ, reſin. picis naval. an.* ʒiiij. *ſevi hircin. medullæ cruris vitulini, an.* ʒij. *æſypi* ʒj. *ol. olivar. aut lini* ℔j. *liquefactis omnibus & tranſcolatis fiat Unguentum, quod reſervetur ad uſum.* He adds ʒj. of Precipitate to every ʒj. of this. But in recent Wounds this will not be neceſſary: For you will find by experience, that theſe Wounds will digeſt and ſuppurate without it, (and that frees them from Putrefaction.) Nor will it be always for your credit, if you conſider the quantity of Balſams we uſe in ſuch Wounds, and what prejudice ſome people may receive either by its Salivating them, or otherwiſe affecting their Spirits. Yet Præcipitate and *axungia* with a few drops of *ol. terebinth.* was a common Medicament amongſt us: But I refer that to you, it being a good Remedy to reſiſt Putrefaction, and haſten ſeparation of the Eſchars. You ought to dreſs up theſe Wounds lightly with a proportionable ſoft Tent, and Pledgits dipt in ſome of theſe Digeſtives very warm, but not to ſcald them. After that embrocate the Parts about with ſuch like: ℞ *ol. lumbric. roſ. myrtill. an.* ʒiij. *aceti cochl.* ij. mix them. In the dreſſing, your Applications over the VVound and Parts circumjacent ſhould be ſuch as have a virtue to hinder the Flux of Humours, and ſtrengthen the Parts: To which purpoſe, ℞ *far. hord. & fabar. an.* ʒvj. *roſ. rub. bacc. myrtill. an.* ʒjß. *ſem. cydon.* ʒvj boil theſe in *poſca* to the conſiſtence of a Cataplaſm, adding at laſt two new-laid Eggs, with *oxymel* ʒijß. If you apprehend this too heavy, you may add *ol. myrtill. & roſ.* with Wax as much as is neceſſary, and make it into the form of a Cerote. Above the Wound lay one of the following Defenſatives, which you may have always ready by you. ℞ *bol. Armen.* ʒiiij. *terræ ſigill.* ʒiij. *ſang. dracon.* ʒjß. *corn. cerv. uſt.* or burnt Bones ʒiijß. or Juice of Sloes dried ʒiij. *ol. roſ. & myrtill. an.* ʒvj. *aceti* ʒxij. boil theſe to the conſiſtence of a Cerote, *addendo in fine decoct. album. ovor.* iiij. Or this: ℞ *pulv. roſ. rubr. myrtill.* ʒj. *bol. Armen. terr. ſigill. an.* ʒvj. *ſucc. plantag. ſolani,*

ſolani, an. ℥ij. *aceti opt.* ℥iiij. *ol. roſ. & myrtill. an.* ℥vj. *ceræ q. ſ. Miſc.* Apply your Compreſs dipped *in aceto* or Oxycrate: Let your Bandage be put on equally and gently, to retain your Dreſſings, and hinder the influx of Humours.

Bleeding. Having thus dreſt the Patient, preſently conſider of letting him Blood, to prevent ill Accidents, and eſpecially if he loſt little or no Blood from the Wound, or if there be a *Plethora* joyned with it. In which caſe Revulſion made from the ſame ſide is commended by *Galen. Revulſio enim quæ è directo ſit celerrimam utilitatem adfert: Galen. De Sang. miſſione.*

Clyſters. A Clyſter ſhould precede Phlebotomy. It may be made of the common Decoctions; or of Mallows, Violets, Beets, Mercury, Bay and Juniper-berries, with Oil of Linſeed, Honey of Roſes, *hiera picra, Elect. lenitiv.* &c. But if you have not theſe in readineſs, make your Clyſter with the Broth of Fleſh, *ol. chamæmel.* Sugar, and the Yolk of an Egge, with a little Salt, if your Broth be not ſalt, or, in caſe of neceſſity, ſalt Water; or Broth out of the Kettle, with a few Flowers of Camomil boiled in it, and ſtrained, adding a little Butter or Oil and red Sugar. Any ſuch like may ſerve for a good Clyſter.

Epithemata. It will alſo be requiſite you be furniſhed with ſome Cordials, to reſiſt the putrid Vapours, and refreſh the Spirits; which you may do externally by ſome *Epithemata* of diſtilled Waters, as of Balm, Bugloſs, Roſes, *acetum*, with the Powder of the Roots of *tormentill. ſcordium, ſcorzonera, contrayerva*, or other cordial Species, of which you have variety in the *Pharmacopœia Londinenſis*, which may be for your purpoſe. This following may ſerve for an example: ℞ *aq. meliſſæ, borrag. bugloſſ. an.* ℥ij. *aceti roſati* ℥j. *ſpeciei diarrhod.* ʒj. *croci* ℈j. *Miſc. fiat Epithema.*

Cordials. And with ſome of the foreſaid Waters you may make Cordials alſo, by adding Syrup of Citrons, Gilliflowers, and *confect. Alkermes.* For inſtance, ℞ *aq. bugloſſ. cinnamon. an.* ℥ij. *confect. Alkermes* ℈j. *lap. bezoard. occid.* ℈ſſ. *ſyr. è ſucc. citr. cochl.* ij. *Miſc.* For the common Souldier a dram of *London*-treacle or Mithridate

Diet. diſſolved in Wine may ſerve. As to their manner of Diet, in great Wounds it is neceſſary to obſerve a ſpare one, as Barly-grewels, Panadoes, thin Broth, or a Potched Egge, this much availing to the preventing of Inflammation. But in this the Patient's cuſtome muſt be conſidered. Alſo the Air ought to be temperate; for cold is an enemy to VVounds. Reſt is likewiſe required, as well to the Mind as the Body. Therefore having dreſt him, lay him to reſt with ʒvj. *ſyr. de meconio cum cochl.* ij. *aq. cardiacæ in* ℥iij. *aq. papaver.*

The ſecond days dreſſing. VVe ſhall now proceed to the ſecond day's work, and therein conſider the Habit of Body, and more particularly what concerns the VVound. In theſe Gun-ſhot VVounds it may be convenient the Body be gently purged by Lenients, as is formerly ſaid. *Purgatio enim per alvum pleriſque vulneribus prodeſt.* Purging avails much for the carrying off bilious and ſerous Humours, which from their heat and tenacity are moſt apt to ferment and flow into theſe VVounds, and cauſe Pain, Inflammation, and other ill Symptoms. In which caſes *caſſia, manna, tamarind. ſyr. de cichor. cum rhabarb. roſ. ſolut.* are preſcribed, and may be taken in VVhey or Ptiſans.

Purging. But as for ſtronger Purgatives, *Hippocrates* ſaith well, *Cocta ſunt purganda, non cruda:* VVhich is more eſpecially true when you ſpeak of Scammoniate Medicines.

Having thus propoſed a general way of Purging, we ſhall again conſider what is requiſite for Dreſſing the VVound, and prepare our Dreſſings, and apply ſuch Medicaments as may be neceſſary. In order to which you ought to have a Fomentation ready, whereout may be wrung a hot Stupe. To which

Fomentation. purpoſe, ℞ *ſummitat. hyperici, centaur. ſcordii, abſinth. an.* Mj. *flor. roſ. rub. chamæmel.*

chamæmel. melilot. sambuci, an. Mjß. *furfuris* Pj. *coq. in aq. font. ad* ℔ijß. *colat. adde vini austeri* ℔j. *spir. vini* ʒvj. *fiat Fotus.* These will give a breathing to the Parts, and defend the Wound from the Air while you consider it. If all be well, continue the use of Digestives. But if it be accompanied with very great Pain, you may foment with this: ℞ *decoct. rad. althææ, malvar. fol. verbasc. chamæmel. melilot. sem. lini, fænugræc.* boiled in Sheeps-head-broth, or other. And of the *fæces* of this Fomentation you may make a Cataplasm, adding *farin. hord.* ℔ß. *sem. lini, cydonior. pulv. an.* ʒj. *unguent. basil. & unguent. dialthææ an.* ʒiß. *axung. porcinæ vet. q. s. croci.* ʒj. *in fine coctionis addend. ovor. integr. recent. num.* iiij. Apply it over all, or the former Cataplasm. It cherishes the heat of the Part, furthers Suppuration, and is anodyne. You are to make the Bandage as before, and continue this way of dressing to the seventh or ninth day, until you have separated the Sloughs, digested the Wound, and have a laudable *Pus*, (as you are wont to call it,) which is *album æquale, leve, & minimè fœtidum*, a perfect white Matter, of good consistence, and not fœtid or ill sented. If the Matter be defective in any of the said qualities, Præcipitate will be of good use mixt with the latter Unguent of *Quercetan's*, or that mixt with *unguent. Apostolor.* Or this following Unguent may be applyed alone, or with Præcipitate: ℞ *succ. agrimon. centaur. min. plantag. apii, an.* ʒj. *mucilag. hord.* ʒiiij. boil these together, adding *terebinth. Venet.* ʒiij. *mell. com.* ʒij. *far. hord. cribrat.* ʒiij. *croci. pulv.* ϑj. *fiat Mundificativum.* To this you may add Aloes, Myrrh, *sarcocoll. rad. aristoloch. gentian. ireos*, for the incarning these Wounds. If you desire rather Injection, the same Ingredients may serve. But in the use of Injections be sure you do not stop the Orifice to keep the Liquour in; for so you shall distend the Ulcer, and make it more Sinuous.

Chap. IV.

Of Accidents befalling Gun-shot Wounds, and of Sinuous Ulcers.

But from the first to the eleventh day many Accidents are wont to happen to these Wounds, which not only impede the Cure, but often, without timely help, destroy the Patient. And these are, vehement Pain, Inflammation, *Erysipelas*, from whence Gangrenes and *Sphaceli* do frequently happen. These latter take their beginning from Inflammation. Therefore I have elsewhere particularly treated of Inflammation and *Erysipelas*, that you, seeing what it is, may in its beginning prevent its increase. It commonly proceedeth in this case, either from a very ill Habit of body, or from the ill handling of these Wounds in the beginning. Inflammation.

The Remedy is, timely to prevent the Influx of Humours, and evacuate that which already affecteth the Wound. The first way is, by Bleeding and Purging;

Purging; both which are directed you in the firſt day's work. If you omitted that then, you muſt perform it now. The ſecond way is, by external applications If Pain be the cauſe, you muſt ſuccour it by Anodynes, which may mitigate and repreſs the heat of the Part; of which you may have your choice in the Chapters of *Phlegmon* and *Eryſipelas* in general; and in the firſt Chapter of the Treatiſe of Wounds, where we have particularly treated of Pains, and propoſed their Relief, *&c. viz.* in their Beginning with Refrigerants and Repellents, and in their State by moderate Calefaction and Diſcutients, and afterwards by Concoction of the Matter; to which Treatiſe I refer you.

Gangrene. The next and moſt cruel Symptom is Mortification of the Part, which very often attends great Inflammations, and is ſhrewdly to be ſuſpected when they yield not readily to Diſcutients or Suppuratives. In theſe Wounds it happens moſt commonly through a Suffocation of the natural heat of the Part, by reaſon of the great concourſe of Humours, or too refrigerating and repellent Applications in the time of great Inflammations, which have infeebled and hindred the *tranſitus* of Spirits into the Part. It may be perceived by the Gleet and change of colour, it beginning to look livid; alſo by a diminution of the Tumour, *&c.*

When you ſee ſuch a change begin, you muſt preſently prepare to withſtand a Mortification by Scarification, not only untill the blood come about the Lips of the Wound, but deep into it through the Eſchar to the quick, and ſuffer it to bleed freely, and make the Part ſenſibly feel, that by ſuch means you may disburthen it of part of what would have choaked it, and make way for the entrance of the operation of the Medicine. Then foment the part with a good *Lixivium* made of Aſhes, to which may be added Salt and Vinegar. Or you may boil *ſcord. abſinth. centaur.* and ſuch like, in the aforeſaid *Lixivium.* After you have well fomented the place, waſh the Scarifications, and dreſs the Wound with *Ægyptiac. cum theriac. Venet.* diſſolved *in aceto vin.* adding calcin'd Vitriol, *&c.* then apply a Cataplaſm *ex farin. hord. fabar. orobi, lupinor.* decocted in ſome of the ſame *Lixivium*, with an addition of Oxymel to it. But as to this Matter I refer you to the particular Chapter of *Gangrænæ* and *Sphaceli*, for farther directions therein. The Gangrene ſtopt, haſten ſeparation of the Eſchars by Digeſtives, and then deterge with *mundif. ex apio & Paracelſ.* &c. and ſo proceed with Sarcoticks and Epuloticks to finiſh the Cure.

Hemorrhagia. But in the ſeparating of contuſed Parts as I have often told you, great Fluxes
Obſervation. of blood uſually burſt out upon us. Thus in a Patient of mine, wounded by a Shot through the inſide of the *Radius*, upon ſeparation of the Eſchar a great Flux of blood happened. While I was ſtopping the firſt Orifice, which was neareſt the Artery, the blood burſt forth of the other. Hereupon I ſtopt both the Orifices with ſome aſtringent Powders, (I ſuppoſe that of *Galen's* preſcription of Aloes and Hares-fur, I moſt frequently uſing thoſe as the beſt in ſuch caſes,) rowling up the VVound with a good Compreſs dipt in a Stiptick Decoction, laying my common Defenſative over all, and did not open it till three or four days after. How ſuch Fluxes of blood are farther to be treated, you may ſee in the Chapter of an *Aneuriſma.*

See Treatiſe of Wounds.

Sinuous Ulcers. Gun-ſhot Wounds after ſeparation of the Eſchar are apt to become Sinuous Ulcers, eſpecially after great Fluxion, and where Bandage cannot be uſed to preſerve the Tone of the Parts, as in the upper part of the Thigh and Hip, *&c.* Theſe Cavities cauſing much pain to the Patient, and difficulty and trouble to the Chirurgeon, we ſhall conſider their Cure, taking our Indication from the Parts affected, with the largeneſs of the VVound, Contuſion and Laceration of Parts: For from ſuch VVounds there muſt neceſſarily be loſs of Subſtance,

and

and the quantity or evil quality of the Matter must needs render it Sinuous, especially where Bandage cannot be conveniently made to thrust out the Matter.

And if the Bullet or any extraneous body be yet remaining within, and the Parts extremely tumefied, and troubled with pain and influx of Humours, the included body will be the more streightned in its passage out, and render the Cure so much the more difficult. And if a *Cacochymia* or *Lues Ven.* be joyned with it, you will scarce cure your Patient without exhibiting Antivenereal and Scorbutick Remedies.

Therefore to prevent Sinuosities, you are to enlarge the Orifice at first, and keep it so wide open, that the Matter which is daily there ingendred may have free passage out: which if it may not by the way the Shot went in, then you must consider how in another place the *Sinus* may discharge it self. This being prudently effected, and the Matter thereby discharged, you shall then more easily perfect your Cure.

But before you make this Apertion, you must consider whether by altering the position of the Part, or by Compression with Bandage, or by hollow Tents, the Matter may not be brought out. And to make the Cure of these Cavities the more facil, you must endeavour to place the Member in such a figure that the Orifice may be depending. Also you must endeavour by Stupes, Sponges, Compress and good Bandage, to press out the Matter, that the Cavities may unite. They should be wrung out of Red wine wherein have been infused *flor. ros. rubr. myrtill. cort. granat. balaust. nuc. cupress. sumach, acacia.* and if the Matter do not well discharge between Dressings, you must dress it the oftener. Also Injections may be made with a Decoction of some of these following, *myrrh. aloes, sarcocoll. rad. iridos, aristoloch. spir. vini, mel ros. aq. calcis, alum.* and such like, to dispose the Sinuosities to heal.

Sometimes in a Wound inflicted on the upper part of a Member, the Matter not being likely to discharge it self thereout, I have by a Seton-needle perforated it through; and retaining the twisted Silk in the Ulcer till the lower Orifice was digested, then drawing out the Silk, I kept it open by a Tent a few days, till the upper part agglutinated; and afterward, as the Matter lessened in the depending Orifice, I left off the use of the Tent, and healed it up.

1. Observat. of a wounded Thigh.

SO in a Gun-shot Wound on the inside of the Thigh, passing under that *Inguen* slanting up to the *Os ilion*, and apostemating in the upper parts, it not yielding to Cure by Injections, Bandage, *&c.* I made a *Cannula*, through which I passed a Needle with a twisted Silk, and kept in the Silk as a Seton, till I had by Gentian-roots dilated the Orifice sufficiently for the discharge of Matter. To make the Perforation of the Needle more certain and easie, I applied a Caustick first upon the place, the better to feel the end of the *Cannula*. By this Apertion the Matter discharged it self in what position soever he lay, and he was thereby happily cured.

2. Observat. of a shot in the Face.

One was shot in the Face betwixt the Nose and Eye on the right side into the *Ethmoides* by a Pistol-bullet. After he had been cured some years of the external Wound in his Face, he became troubled with a fretting *Ichor*, which discharged by that Nostril; and especially at his first rising in the morning out of bed it would run half a Spoonful of a yellowish colour, which had made a chop or gutter at the lower end of that Nostril by its acrimony. After some years he felt, upon bending his Head backwards or forwards, the Bullet to rowl to and fro over the Roof of his mouth. He complained to me of his Grievance at the *Hague* in *Holland*, a little before his *Majestie's* going into *Scotland*.

I offered to his consideration the casting in Injections, or passing a Probe into that Nostril downwards, to try if either way it might be washt or thrust downwards in the Gullet, or be excreted into his Mouth. But these ways had heretofore proved ineffectual. We therefore resolved upon the cutting through the Palat-bone. To which purpose I placed him in a clear light, one holding his Head steady, while I cut into the Roof. But the Flesh was so close tied to the Bone, that it would not yield to my *Spatula* as I expected: wherefore I applied a bit of a Caustick stone, and held it to the place with a Pledgit of Lint a few minuits; by which I consumed the soft fleshy part over the Bone, and afterwards cut into the Bone such a hole, that in the moving of his Head I could see the Bullet loged in the Hole: which encouraging us to proceed in our work, the Bullet was afterwards taken out, and he eased of that discharge of Matter which threatned a filthy carious Ulcer. My attendance upon his *Majesty* into *Scotland* hindering my prosecution of that Cure, I left him in the hands of a Chirurgeon there, and since have often seen him at Court. But the Ulcer did not close up with a *Callus*; however the place is supplied by a small Plate without offence.

If the *Sinus* run transverse the Veins, Arteries, Nerves, Tendons, *&c.* you may then, (if you think it not safe to pass a Needle in a *Cannula* through it, or if you cannot do it by reason of the make of the Part, you may then, I say,) make use of that Instrument described in the Treatise of *Fistulæ* and Sinuous Ulcers *in Ano*, by which you may cut as assuredly upon the end of the Director which passeth within the *Sinus*, as if you saw it before you. It is commonly used where the end of the *Sinus* lieth most distant from the Skin. After which Apertion it must be kept open by a Tent, for the discharge of Matter, till it be well digested, and fit to cure. If the Orifice be small, and the *Sinus* lie but under the Skin, and in such a place as may be safely opened, it may be dilated with prepared Sponge, or Gentian-roots, and afterwards snipt open by a pair of Probe-scissors, or cut by a Knife upon the Director within, or laid open by Caustick. And after you have divided the *Sinus*, you may digest it with *terebinth. cum vitell. ovor.* or deterge by some of the Mundificatives set down in the Cure of Ulcers in general; and if there be occasion of more Sarcoticks, you may add *mel comm. pulv. myrrhæ, thuris, rad. ireos*, to make it more exsiccant. But commonly, the depending part once opened, the Wound cureth in few days by Bandage, *&c.* as aboveſaid.

But if after all your endeavours these Ulcers grow Fistulous, you shall find the Cure of them in another place.

CHAP.

Chap. V.

Of Gun-ſhot Wounds with Fracture.

HAving declared unto you the way of curing Gun-ſhot Wounds in the ſoft and fleſhy Parts, I purpoſe now to proceed to the curing them as they are complicated with Fracture of the Bones, whoſe firmneſs, drineſs, ſtability and ſolidity, cannot defend them from theſe Inconveniences; nay, in the caſe I am to ſpeak of, they are rather Diſcommodities. For when the Bullet ſtriketh like Lightning, were they ſofter, it were the better, that the Bullet might paſs, and not ſhatter them. There is not any of the five ſorts of Fractures mentioned by the Ancients which theſe Blows will not occaſion. Sometimes they will cleave the Bone *aſſulatim*, according to the length; and otherwhile they will break it athwart; other times they will divide it like the Scales of a Fiſh. Nay, if the Bones be drier than ordinary, (as in elderly men, and ſuch in whom nature or Diſeaſes have made them ſo,) they will grind the Bone like Meal. Yet I have ſeen and dreſt a Souldier that hath been ſhot through the Joint of the Ancle without ever breaking the leaſt part of the Cartilage.

The ways to know when there is a Fracture in the Bone are many. Signs of Fractures.

1. *Hippocrates* bids us compare the ſound Parts with the Parts affected, and obſerve the inequality.

2. You ſhall perceive a Cavity, if you touch the Parts above and under the Fracture.

3. If you handle the fractured Member, you ſhall perceive a craſhing of Bones, by reaſon of the mutual attrition of the hard bodies.

4. There will be extraordinary Pain, in regard of the divulſion of the Nerves, and diſtortion of the Tendonous bodies; alſo a pricking in the Fleſhy parts by the ſharp ends or Shivers of ſome Bone.

5. There will be an impotency of the broken Member, ſo that the Patient cannot lean upon it.

6. The antecedent cauſe (Gun-ſhot) will teach much in this caſe, than which there never was (nor ever will be I believe) invented a more powerfull one.

7. The aſperity and inequality or roughneſs of the Bone manifeſt it to you: but the ſearch will give you no ſmall aſſurance.

Concerning Prognoſticks, you ſhall underſtand, Prognoſticks.

1. Bones receive a quicker Agglutination in Sanguine than in Cholerick bodies, by reaſon of the benignity of the *Serum*, which ſendeth out better matter for a *Callus*.

2. Bones are broke with leſs danger in the middle than near the Joint, where they are both more hard to be reſtored, and to be kept ſo reſtored; and becauſe of the multitude of Symptoms, (which in ſuch Wounds cannot but ſupervene,) are not without great difficulty to be cured.

3. And laſtly, thoſe Fractures are moſt dangerous which are made ſo deep in the Fleſhy parts, that your hands cannot well come at them, to extract the

looſe Bones, and place the other right, and retain them ſo by Bandage; as thoſe of the *Pubes*, *Os ilion*, *ſacrum*, &c. So alſo all thoſe Fractures made by Splinter are exceeding dangerous, they generally ſhattering the Bone to pieces; in which caſe the Nerves, Tendons, *&c.* are grievouſly pricked and torn, and are ſubject to extraordinary Pain, Inflammation, Convulſions, and Death, unleſs immediate Remedy be had by removing thoſe Bones, or by Amputation of the Member.

Amongſt the Cruiſers in private Fregats from *Dunkerk* it was complained, that their Chirurgeons were too active in amputating thoſe fractured Members. As in truth there are ſuch ſilly Brothers, who will brag of the many they have diſmembred, and think that way to lie themſelves into credit. But they that truly underſtand Amputation and their Trade, well know how villanous a thing it is to glory in ſuch a work.

In the *Roman* Hiſtory you will find it was not allowed at all: *Livy* tells you their reward amongſt them. But later experience judgeth it commendable, if it be neceſſary, and in ſuch ſhattered Lims where there is no hope of preſerving the Patient's life otherwiſe. And then it muſt be done in its proper time, that is to ſay, ſuddenly upon the receipt of the Wound, before the Patient's Spirits be over-heated either with Pain, Fever, *&c.* Of the neceſſity of doing it ſpeedily I ſhall here give you one remarkable Inſtance.

Obſervation. A *Scotiſh* Souldier was brought to me out of the field at the Battel of *Worceſter* ſhot with a Musket-bullet into the Elbow-joint, which fractured not only the ends of the *Radius* and *Ulna*, but likewiſe that of the *Adjutorium*. Upon ſight whereof I called *Will. Clarke* (now a Chirurgeon at *Bridgenorth*) and other my Servants about me, to cut off the Arm, and the while I endeavoured to encourage the Souldier to endure it. In anſwer thereto he only cried, Give me drink, and I will die. They did give him drink, and he made good his promiſe, and died ſoon after; yet had no other Wound than that. By which may be perceived the danger in delaying this work to the next day, when the foreſaid Accidents have kept them watching all night, and totally debilitated their Spirits. Which happens not, if it be done in heat of Fight; for then, while they are ſurprized and as it were amazed with the Accident, the Lim is taken off much eaſier: and if it be the Arm, ſome of them will ſcarce be kept in the Hold while the Ship is cloſe engaged in Fight. In the heat of Fight I cut off a man's Arm, and after he was laid down, the Fight growing hotter, he ran up, and helpt to traverſe a Gun. And a *Walloon* earneſtly begged of me to cut off his ſhattered Leg: which whilſt I was doing, he cried, *Depeche vous connous vendrone a terre mous bioron.* Alſo others have urged me to diſmember their ſhattered Lims at ſuch a time, when the next day they have profeſt rather to die But amongſt us aboard in that Service it was counted a great ſhame to the Chirurgeon, if that Operation were left to be done the next day, when Symptoms were upon the Patient, and he ſpent with Watchings, *&c.* Therefore you are to conſider well the Member, and if you have no probable hope of Sanation, cut it off quickly, while the Souldier is heated and in mettle. But if there be hopes of Cure, proceed rationally to a right and methodical Healing of ſuch Wounds; it being more for your Credit to ſave one Member, than to cut off many. This following method is the beſt.

Cure. Cleanſe the Wound firſt from all ſtrange bodies, as Bullets, Armour, Apparrel, and Shivers of Bones; ſo ſhall the Cure ſucceed more happily. For inſtance;

Obſervation. A Gentleman-Voluntier skirmiſhing with the Enemy before the City of *Worceſter*,

Worcester, was brought to us run through his Arm in the middle of the *Biceps* with a Sword, and shot with a Musket-bullet in the same Shoulder under the *Os scapulæ*, which took away the *Coracoïdes*, and tore the Ligaments in other parts of the Joint. We dressed the Wound inflicted by the Sword with Agglutinatives, healing it by the first Intention. We inlarged the Gun-shot Wound, pulled out the Bullet and pieces of the *Coracoïdes*, &c. and dressed it up with Digestives and lenient Embrocations, *&c.* and afterwards deterged with *mundif. Paracelsi.* He being *Will. Clark*'s acquaintance, he took care of him, and hastened the Exfoliation of the Bones with *mel ros. & spir. vini.* Afterwards, being near cured, he made his escape into his own Country. Many Instances of this kind may be given, if it were necessary.

If the Fracture be near a Joint, the violence of the Blow will many times add a Dislocation also to it. If that happen, restore the Joint first to its place, before you meddle with the Fracture. These Dislocations are made by great Shot or Splinters of wood whose force shatters the Lims in picees, or carries them quite away. But this latter rarely happens, but usually when the Member is shattered, it hangs by some little part of a Tendon, Musculous flesh, or Skin. In which case your work is, with a good Razour or Knife presently to plain the Stump, and pull up the Flesh, that you may saw off the end of the Bone close to it. Smooth the Stump.

One had his Arm shot off above the Elbow. We drest him up at first in haste, and at the next dressing his Shoulder proved out of Joint. We could not set it, by reason of the anguish of the Stump; which was a greater Pain to him than his Wound, and troubled him many months after. But so it happened, and in short Stumps it is remedileſs. One of our Captain-Reformadoes had been served so formerly with his stumpt Arm. Observation.

If you will endeavour the remedying it, you must do it by help of a Bandage made above the Stump. But if it be above the Elbow, how will you fasten it. Yet in some bodies the Bone will be restored easily: therefore attempt it before you dress the Member.

In another that had his Leg shot off, in the place of Amputation below the Knee, some two months after, when I wondred the Bone did not exfoliate, I put in my *Forceps* to try whether any part of the Bone was loose: and finding it very loose, I took hold of it gently, and feeling it willing to come away, I pulled it out. It was the *Apophysis* or head of the *Os tibiæ*, which makes the Knee. I was surprized at it; but considering what was loose must away, I pulled it out, to the amazement of the lookers on. This was relaxt from its Ligaments by the force of the Blow. Observation.

In these fractured Wounds made by Gun-shot the Chirurgeon ought to propose two things to himself; first the Fracture, and then the Wound. To proceed orderly, you begin with the Fracture, *viz.* with the Extension and Coaptation, that thereby the Fracture may be reduced to its proper seat: which in all these cases must be performed with much steadiness and discretion; not with such force as in those Fractures that are without a Wound, lest the Musculous or Nervous parts, being torn, bruised or crushed, should suffer extreme Pain, Convulsions, *&c.* Before you begin this Operation, if the Wound be not large enough, make it so, that you may the better pull out the extraneous bodies, whether Slug, Bullet, Rags, Splinters, or Shivers of Bones; so shall the Extension be made the easier, and be less subject to Inflammation, though you should not set it at that instant; for a small Extension will afterwards serve. Whereas if the Wound be not so cleansed, those extraneous bodies, nay the smallest Shivers of the Bone, will raise such disturbance as will render it incapable of digestion. Therefore what *Hippocrates* saith of attending to the Extension.

3. 7. or 11. day, in case the Fracture be not reduced before Inflammation, would in these cases never be; for by that time the best that could be expected would be Apostemations and crude Tumours, too big to be discussed. Therefore however the Reduction of the Fracture may have been omitted, yet it will behove the Chirurgeon then consulted to extract the extraneous bodies immediately, so shall it lie more quiet, and fitter for Reduction at his more leisure. But to avoid these Inconveniences, make your Extension so soon as you may, and restore the Bones to their former place with what gentle dexterity and lenity you can possibly. If the Wound be narrow, dilate it, as I have said, by Incision at the first: for these Wounds require more Dilatation than any other, that not only the bruised and vitiated Blood and other Excrements may have a free passage, but also by this means the Shivers of Bones (of which these Wounds use to be very full) may with less trouble be extracted by your selves, or discharged by Nature.

If you make not this Dilatation in the beginning, you may afterwards perhaps be forced to do it when the Part is accompanied with great Defluxion and Pain, or when the Bones are corrupt by retention of the Matter: and what condition it will then be in to admit of Incision, may easily be guessed by any one that hath common sense.

Dressing of Gun-shot with Fracture.

After it is laid open, consider whether the Bone be bare or not; which you may satisfie your self in by your Eye, Finger, or Probe. If it be bare, you must apply next to it some dry or exsiccant Medicine; *Sicca siccis gaudent*; dry to dry. Of this sort are dry Lint, Powders of the Roots of *Iris*, Myrrh, Aloes, *Thus*, &c. Forbear the application of greazie Medicaments to it, for they make the Bones foul, and hinder *Callus*. Yet the Parts adjacent require Digestion; therefore apply over them your Suppuratives warm, such as have been proposed in Simple Gun-shot. Then dress up the fractured Member with *empl. è bolo*, or this following: ℞ *empl. diachalcith.* with the addition of *colophon. pulv. rad. consolid. maj. boli Armen. cort. granator. succ. plantag. cum ol. myrtill. & lumbricor. an. q. s. Misc. & fiat Emplast.* Then apply over the Wound a Stupe or double Cloaths wrung out of Red wine wherein have been infused *flor. ros. rubr. balaust. sumach, bacc. myrtill. summit. absinth.* or such like. This Compresse will serve to keep the Lips of the Wound smooth, and defend it from the injury it may receive by Bandage.

Deligation.

The next thing which is required in these fractured Wounds is Deligation: for unless they be rightly fitted, none of these Fractures, of what sort soever, can be well united. In simple Fractures without a Wound, all kind of Bandage may be admitted; whereof you may see in my Lecture of these Fractures various sorts, with many Circumvolutions about the Member. And once opening in seven days will serve their turn. But in these another method of binding is required; for here the Bandage is to be loosened daily, and the Wounds to be lookt into and dresst, they being here to be long kept open for discharge of excrementitious and purulent Matter, with which they abound, also for the Exfoliation of carious Bones, which lying there would corrupt the sound ones.

Bandage to be daily loosened in Gun-shot Wounds with Fracture.

Manner of Bandage in Gun-shot Wounds with Fracture.

Therefore in these kind of Wounds you must use such a Bandage as may least shake the fractured Members. For they being every day to be dresst, the so often rowing them up would cause grievous Pains, and hinder union. Therefore it is that Authours have invented so many kinds of Bandage, to answer the Intentions of dressing them, and yet keep the Member immovable. Your Bandage in this case is to be made of softer and broader Linen cloaths than what we use in Simple Fractures, that it may comprehend both the Fracture and the Wound, and keep the Lips down, yet not hurt them by its too hard Compression.

There-

Therefore we make choice of a piece of Cloath folded three or four times double, to give it the more strength, and of such a breadth as may incompass the Lips of the Wound and the fractured Parts, also of such a length as to come once about the Fracture. This Cloath must have three Slits from the ends to the middle, which middle must lie undivided underneath, to bear more equally the fractured Member, and the ends must come over one another with a Compress between over the Wound, to press the Lips thereof equally down, which would otherwise become crude, and pout out with great Lips. The Compress also serves to receive the Matter, and fill up the Inequality. These are so to be fastened, that you may dress and undress the Wound without disturbing the Member.

But because it happeneth, that in these Gun-shot Wounds the Bones are shrewdly shattered, and the Wound lacerated, and by reason of the largeness of the Fracture and Wound it is extremely painful, the Member also is rendred so weak, that it cannot be kept steady by this Bandage; therefore we make use of *Ferulæ* or Splints, whereof I have made mention in my Lecture of Fractures in general, with the Judgments of the Ancients, who have been very industrious in contriving ways to make equal Compression, and leave a way for the dressing of these compound Fractures. Splints.

They are not to be used till the Inflammation and Flux of Humours be off, which is not until the seventh day; during which we use *Splenia*, which are linen Cloaths folded four times double, and cut in length and breadth like the *Ferulæ*. These are to be spred with *Galen*'s Cerote, or any Ointment, that so they may adhere to the Part only until you have put the Bandage over it. And this is that I propose in all Fractures where there is Pain, and fear of Inflammation, and is especially necessary in these. When to be used.

They will handsomly strengthen the Part, and make such equal Compression, that the Bones may be kept in their place, the serous Humours prest out of the *Cavernulæ*, and the fractured Member lie soft; which is a great help in these Wounds, the whole welfare of the Patient depending upon the easie Bandage and Position of the Member. The Pain and Inflammation gone off, and the Wound digested, (if you think the Member not so subject to Inflammation, or that it requireth a greater strength to support it,) you may use Pastboard cut into pieces proportionable to lay over those *Splenia*: or, having fastned the *Splenia* by the broad Bandage with three heads, cut a piece of Pastboard fit to receive the lower part of the Member, and leave a place commodious for dressing the Wound. Over the other part of the fractured Member you must place another piece of Pastboard to answer unto the former. These ought to be wet, that they may lie more pliant. About the Pastboard make a Bandage with three Ligatures, which you must fasten in the most convenient place for the ease of the Patient. But if the *Splenia* be wet in Whites of eggs, and applied, they will strengthen the Member, and also keep it steady, without those.

If you think those of Pastboard not strong enough, you may use *Laminæ*, Copper or Tin-plates lined with soft Linings, to receive the fractured Member, with Loops in the outside, to receive the three Ligatures answerable to those which lie underneath next the Plaister, that they may be fastened and loosened at pleasure, without disturbing the Fracture, in the daily dressing of the Wound. And if it be in the Thighs, the Plates are best; these Parts requiring such as are of great strength and length, and of such compass as may take in the lower half of the Member. These *Laminæ*, or whatever else you use, must have a large Hole cut in them for the Wound to be drest through. *Laminæ* or Plates.

But I have always observed inconvenience in these Plates; that there is not

not so good Compression made upon the Lips of the Wound through those holes as to hinder them from thrusting out; whence there ariseth a Laxity and Indigestion in the Wound; and besides, the Matter that so dischargeth heats the Parts, and in hot weather corrupts and breeds Maggots. Therefore I make the Pastboard or *Laminæ* over my first Bandage to incompass so much of the lower parts as may support the Fracture, and come within an inch of the Wound; and over the Wound it self I fasten a *Splenium* of Cloath folded four times double, or a *Ferula* of Tin, Copper, or Pastboard, lined according as I judge the Part can bear, and such as may be taken off at each dressing.

The first Bandge next to my Cerote makes an equal Compression by its three heads meeting over one another: the lowermost presseth the Humours from below upward, and with the help of its next fellow keeps the Bones together, and forceth the Matter out of the Wound: also, by the help this middle Bracer hath of the uppermost, the Matter is prest out of the upper part of the Fracture and Wound to the Orifice: it also restraineth the influx of Humours from above, by virtue of the Defensative lying under it. In the dressing these Wounds, you are only to undo the middle Binder to come at the Wound; having a special care that this Bandage be neither too hard nor slack, but indifferently made, to the ease of the Patient.

Having thus proposed to you the way of Deligation, I shall now proceed to the last Operation performed in these Fractures of a Wound, which is a commodious Position or placing of the Member, which (as I have told you in the Lecture of Simple Fractures) ought to have three Conditions.

Position of the Part.

1. It must lie soft, lest the Compression offend the hurt Parts, and cause Pain and Inflammation.

2. Equal: for if the Member be placed otherwise, it becomes distorted, and the Operation succeeds ill.

3. Lastly, it must lie higher than the Parts next the body, especially the first three or four days. For if it incline downwards, the Humours by their own weight will easily flow to the Part afflicted. How this Position is performed, I have set down in the Lecture of Simple Fractures, to which I refer you.

The fractured Bones of the wounded Part thus restored to their natural places, and the Wound digested, also the Inflammation and other Accidents gone off, which is commonly about the seventh or ninth day, you shall then unloose the Bandage, take off your restrictive Medicament, and apply the *Emplastr. catagmat.* in our *London* Dispensatory (or some of these under-written) over the fractured Member, which may add strength to the Part, and further the generation of *Callus.* ℞ *resinæ abiet. ceræ, an.* ℔j. *pulv. cort. tiliæ* ℥iij. *succ. geranii* ℥iiij. *coq. ad Cerati consistentiam:* or this; ℞ *mucilag. rad. consolid. maj. visci pomor. & populeon. an.* ℥iiij. *succ. geranii* ℥vj. *osteocoll.* ℥iij. *pulv. cort. tiliæ* ℥ij. *vitell. ovor. num.* xx. *terebinth.* ℔ij ß. *ol. lumbricor.* ℥iij. *coq. omnia bene permixt. ad Cerati consist. pro usu.* But if you keep up the temper of the Part, you need not doubt of a *Callus.* I commonly in these cases make use of *empl. stict. Paracels. part.* ij. *empl. diachalcith. part.* j. Over these apply a double Cloath dipt in Red wine wherein have been boiled some of the abovementioned Plants. Then place the former Bandage again, and over it those *Laminæ* of Copper, or *Splenia* of double Cloaths dipt in Whites of eggs, and wrung out hard. These latter will sit close to the Part, and after they are dry, will support the fractured Member well.

After the ninth day we suppose the Wound well digested; therefore we forbear the use of Suppuratives, and use such Medicines as are detergent, as the *mundif. Paracelsi:* or, if you please, ℞ *vincæ pervincæ, peti, persicariæ, beton.*

an.

an. Mj *flor. hyperic. verbasc. an.* Pj. *rad. aristoloch. utriusque an.* ℥ß. *thuris, myrrhæ, sarcocoll. ireos, an.* ʒij. *coq. in vino albo, addendo colaturæ mellis rosacei q. s.* This being cast in with a Syringe will deterge and incarn: Or you may make it into an Unguent by the addition of *terebinth.* Wax, and *ol. hyperic.* and apply it upon Dossils, Pledgits, or Tents.

If there be *Caries*, you may make a Decoction of *scordium, vinca pervinca, peucedanum, gentian. cort. guaiaci, rad. ireos, myrrha*, in Wine, adding *spir. vini*, or *extract. scordii.* If the *Caries* yield not to these, touch it now and then with some of the following Medicines. ℞ *ol. myrrhæ distillat. per descensum & purificat. cum spir. vini* ℥ß. *olei caryophyll.* ʒij. *ol. sulphuris* ʒijß. *Misc.* This will in a short time remove the Cariosity; afterwards you may proceed by Epuloticks.

Vulnerary Plants are here of great use, and may be prescribed as followeth. ℞ *aristoloch. rot.* ʒij. *fol. serpentariæ, consolidæ utriusque, geranii, columb. sanículæ, an.* Mj. beat them into gross Powder, and boiling them in a Gallon of Wine in a Vessel close stopt, give the Patient thereof Morning and Evening ℥iiij. at a time. You may give ʒj. of *osteocoll.* powdered in a draught of it, or the Decoction of *vincapervinca* made with Wine, for confirming and hastening the *Callus.* In the rest proceed as in the latter end of Simple Fractures is mentioned.

A Souldier being shot by a Musket-bullet into the fore-part of the Arm near the *Biceps*, it fractured the Bone, and passed quite through. I endeavoured by Extension to place the fractured Bone even together, but could not: Upon which I dilated the latter Orifice by a large Incision according to the rectitude of the Member, to pull out those Fragments of Bones which hindered their right Coaptation; and putting my Finger into the VVound to that purpose, I pulled out a ragged piece of a Bullet; whether it was part of that which had passed through was the question. Some of the By-standers thought he was shot with a brace of Bullets: But I rather think the Bullet was torn by the Bone, and that this part was it which had made its way through. However, by this Extraction the main Bone was rightly placed, the Shivers with the extraneous bodies removed, the Matter happily discharged by this depending Orifice, and the Patient was cured by the common Intentions of Healing these fractured Gun-shot Wounds. Whereas, if I had taken it for granted that the Bullet was passed through, and contented my self in having endeavoured the reducing of the fractured Bones, and so drest him up, it had certainly inflamed and gangrened. This confirms that Doctrine in setting of Bones, that if any Bone will not be placed equally amongst his fellows, you ought to cut upon it, and take it out. 1 Observat. of a fractured Arm.

In heat of Fight at Sea, amongst the many wounded men that were put down into the Hold to me, one of them had his right Arm extreamly shattered about two Fingers breadth, on the outside above the Elbow, by a great Splinter. I ought to have cut off this mans Arm presently: But a sudden cry that our Ship was on fire put me in such disorder, that I rather thought of saving my self than dressing my Patients. I hastily clapt a Dressing upon the Wound, and rouled it up, leaving his Arm in his other Hand to support it, and endeavoured to get up out of the Hold as the others did, verily believing I should never dress him nor any of them more. But our men bravely quitted themselves of the Fire-ship by cutting the Sprit-sail-Tackle off with their short Hatchets, (which they wore during Fight sticking in their Sashes.) So we we were freed of the Fire, and by our hoisting up the Top-sails got clear of our Enemy, and I returned to my work. But I was at a loss what to do with 2. Observat. of a Fracture made by a Splinter.

this man, who lay not far off complaining of his Arm. I would have cut it off inſtantly with a Razour, (for the Bone being ſhattered, there needed no Saw:) but the man would not ſuffer me to meddle with his Arm, he crying, it was already dreſt.

The Fight being over, and we gotten into the next Port, I cauſed this Mariners Bed to be ſet up: (which was four pieces of Wood nailed together and corded, and a Bears Skin laid upon it, and faſtened between two Guns to the Carriages:) upon this I ſaw him placed; and having ordered his Arm to be laid ſo that I might the better come to dreſs it, I ſent for dreſſings, and laid them orderly upon a ſmall Pillow well ſtuft and quilted in the middle. Upon this Pillow I firſt laid a ſoft double linen Cloth, next to that three Ligatures, then a Paſtboad wet in Vinegar, to make it more ſoft and pliant; upon that I laid a double Cloth, of ſuch length and breadth as might ſerve to encompaſs the fractured Member, which I cut from each end to the middle into three Binders: Over the middle of this I placed a *Splenium* of Cloth four double, four fingers in breadth, and of ſuch a length as to give ſtrength to the Fracture: Over this lay my Defenſative ſpread upon a thick Cloth, of ſuch a breadth and length as to take in the whole Arm. Dreſſings thus laid upon the Pillow, I cut off the other from his fractured Arm, and placed the Pillow with theſe Dreſſings cloſe by his Side; ſo that I ſaw his Arm laid as I deſigned upon my Reſtrictive, and his Hand upon his Breaſt. Then putting my Fingers into his Wound, I pulled out firſt a piece of a Splinter an inch thick or thereabouts, more or leſs; then Rags and Bones, great and ſmall; I left not the leaſt Shiver. When I had ſo cleared the Wound of all the extraneous bodies and looſe Bones, I was amazed to feel what a void ſpace there was between the ends of the Bones. But I proceeded, and cut off the lacerated Lips, which were of no uſe, and dreſt up the ends of the Bones with a couple of Doſſils dipt in *ſpir. vini* and *mel roſ.* warm. The reſt of the Wound I dreſt as warm with *axung. porcin.* and *Merc. præcipitat.* with ſome little *ol. terebinth.* ſpread upon Doſſils, which I placed lightly within the VVound, and upon Pledgits without, with an *empl. diachalcith.* malaxt with *ol. myrtill.* over all the VVound. Then I embrocated the fractured Arm *cum ol. myrt. & olivar. immatur.* and a little *acetum*, bringing my reſtrictive Emplaſter, which lay under the Arm, over the whole Arm, from the Arm-pit to the Elbow and cloſe round about, only leaving a ſpace to dreſs the VVound.

This gave a ſtrength to the weak Member, and was deſigned to prevent the Influx from above. Juſt under this Emplaſter there lay a *Splenium.* To anſwer that I applied three more, one on each ſide, and another above: VVhich four were of ſuch a ſize, that they, lying a little off from one another, encompaſſed the Arm. They were ſpread lightly with a little Cerote made of *axungia* and VVax, to make them adhere where I placed them.

Then I brought the Bandage which lay under the *Splenium*, with three heads at each end. The lowermoſt of theſe took in the lower part of the Arm, from the Elbow upward, with part of the Fracture, and was faſtened on the exteriour part of the Arm. This preſt the *Sanies* from the neather part of the Arm to the VVound, and hindred the lapſe of Matter that way. The middlemoſt was made to preſs the Matter out of the VVound, and keep the Lips down. The uppermoſt ſerved to reſtrain the Influx, as I ſaid, and preſſed that Matter out which was already in the Part. This Bandage was made with great moderation, and ſo faſtened, that it might be looſened without trouble to the Patient. Then I brought the wet Paſtboard cloſe to the ſides, and cut another piece to anſwer it, which I wetted *in aceto*, and by the three Ligatures under made them faſt, but without diſturbance to the Patient. If it could not have been

been so put on, I should have forborn the use of them, the Cure of these Wounds consisting in the easie Dressing and quiet Position, without which you will not cure one of them. The Pastboard as it dried, stiffened, and retained its shape, preserving the Fracture in the position I left it, and that with a very slack Bandage. Thus I finished the first dressing, leaving my Patient in much ease. He slept pretty well that night, and was the next day as well as I could expect. He was let blood the second day, and kept to a spare Diet: But we allowed Wine as a Cordial to all our Patients.

The third day I drest him again, took off the upper Pastboard, and loosened the heads of the main Bandage; also I took off that *Splenium* which was over the Wound, and raising up the Emplaster from the Wound, took out many Dossils, found it warm and well disposed, and drest it up quick with my Suppuratives hot, and an Emplaster as before. I stirred not the Restrictive, but made now a Compress more particularly for the VVound, purposing not to remove the two outermost heads of the main Bandage, unless it were sometime to give a little breathing to the Member: But the middle I opened as often as I thought fit, to dress the VVound. The other two had short *Splenia* to make the Bandage equal. But I was not then satisfied how the space between the fractured ends of the main Bone could be supplied with *Callus*. My Patient was easier than any of my other with fractured Wounds. VVhen it came to my turn to be visited by my Brother Chirurgeons of our Squadron, they did not dislike the VVound, nor my way of dressing, (for we being used to see one another's Patients, had all much one way of dressing:) But they laught at the excuse I made for not cutting off his Arm, and doubted I should yet be forced to do it. But I kept my Patient flat on his Back, and that after a while was his greatest pain; For the VVound digested, and the Tumour was not then considerable. After the VVound was well digested, and the bruised Flesh separated, I renewed the Dressings, taking all the old ones off, and fomented the Member with warm VVater, to give a breathing to it; then applied a Catagmatick Emplaster, drest the VVound with *mundificat. Paracelsi* or such like, and bound up the Member as at first, and so continued my way of Dressing as I saw cause, putting into the VVound only a Dossil or Tent made upon a Skewer soft and hollow, to give way to the VVound to incarn; I scarce using any Injection, but by gentle Compression assisting Nature, who seldome faileth in supplying the lost Substance in VVounds, if we disturb her not by improper Applications. The next taking off and renewing these Dressings of this fractured Member was occasioned some 16 or 17 days after, by a troublesome itching of the Part, which was occasioned, I suppose, partly from his liberty in Diet, partly by the heat of the VVeather, and want of Transpiration. Upon this account I took off the Dressings, bathed the Member with Sea-water, and drest him up with *emplast. de lithargyro*. The VVound was about this time well incarned within, and the Lips beginning to cicatrize from their edges, I dressed them with Epuloticks, as *unguent. tutiæ*, &c. All this while I kept my Patient upon his Back, and renewed not the whole Dressing until I was again necessitated. One day coming from the Shoar, (where our VVounded men had liberty to lodge if they desired it, and were drest by us there,) I found this Patient with a heat all over his Body like an *Erysipelas*: At which he was much affrighted. He had, it seems, drank VVine too liberally with his Mates, (as they would most of them do, if they were any thing well.) Unless it rather proceeded from a generation of *Callus*, in which case it usually happens. I let him Blood, and dressing him as in an *Erysipelas*, finding his Arm pretty strong, and his VVound healed within, and in a fair way of cicatrizing, I raised him up, after he had lain about eight weeks. All which while

Erysipelas upon the generation of Callus.

while I believe he never ſtirred his Arm from the time I firſt placed it, but only while I renewed the Dreſſings; he being the moſt patient man in that reſpect I ever attended: and in truth, without that ſubmiſſion he could ſcarce have been cured.

There was in this Patient a ſtrong *Callus* filling up the void place of the loſt Bone at leaſt two inches, with little or no ſhortning of the Arm: but the Joint of the Elbow was ſo ſtiff from the poſition it lay ſo long in, that he could not ſtretch that Joint whilſt I knew him, which was until that Ship was caſt away.

My memory will be much cried up, for remembring ſo many particulars in a Patient ſo many years ſince cured by me. But if you conſider how remarkable a caſe it was, and in my Trade, there will be leſs wondring at the poſſibility of it. You may enquire what was done by me in the Cure of Captain *Reade*, where the loſs of his Jaw was ſupplied by a ſtrong *Callus*, and that Cheek made uniform with the other. It will be long remembred by the then Standers-by, though not of our Profeſſion.

In our Sea-fights oftentimes a Buttock, the Brawn of the Thigh, the Calf of the Leg, are torn off by Chain-ſhot and Splinters. All theſe are contuſed Wounds, and look black, and do too often deceive the unexperienced Chirurgeon, he taking them by their aſpect to be gangrened, and by dreſſing them as Mortifications with *Ægyptiac.* and *ſpir. vini*, doth certainly ſphacelate them; and thoſe perſons die miſerably afflicted.

Whereas if they be conſidered rightly, though they look like Fleſh long hang'd in the Air, of a dry blackiſh colour, yet they have warmth, and by Lenients, as is preſcribed in Simple Gun-ſhot Wounds, they would digeſt, ſeparate their Sloughs, and incarn. But they are ſlow in Digeſtion, and require good Fomentations and Embrocations to cheriſh the native heat, which is much weakened by ſo great a loſs of Subſtance. Theſe require *oleum terebinth.* to be mixt with your Digeſtive: But you muſt have a care you do not inflame them and cauſe pain by adding too much of it: A Spoonful to ſix ounces of your Suppuratives is enough in the drieſt Habits. Your judgment will beſt direct you, and your Patient's complaint: It being unreaſonable to hope that Wounds can digeſt, while they are accompanied with much Pain.

CHAP.

Chap. VI.

Of Gun-shot Wounds in the Joints.

THE Wounds of the Joints are subject to more grievous Accidents than those I have heretofore mentioned; therefore they require your more particular care; the Tendons and Ligaments being inserted near the Joints for the motion thereof: there are also Membranes, which do consequently render them of a most exquisite sense. The Trunk of Nerves also in every great Joint passeth through, for the use of the Member that is beyond it. To which I add, that the Part being exsanguous, the natural Balsom of the Body is here more sparingly supplied for the help of the Cure. Great care to be used about these Wounds, and why.

What the Pains are, may be judged by the Wounds in the lesser Joints. Captain *F.* in *Musselborough* Fight was shot in one of his Fingers, and the next day so grievously tormented, that he walkt up and down like a Mad-man, and could take no rest until his wounded Finger was digested: Yet his pain was not so great in his wounded as in his well Fingers.

The greater Wounds are attended with much more vehement Pain, Inflammation, *Delirium*, Convulsions, Gangrene, and are commonly deadly. Prognostick.

In these Gun-shot VVounds, the extraneous bodies and Shivers of Bones must be presently drawn forth: Therefore if the Orifice be not large enough, make it so. But in enlarging the inner or lower Parts in the hollow of the Ham, Arm, Arm-pit or Groin, have a care, for they are subject to great Bleeding. The extraneous bodies being drawn forth, hasten Digestion, by dropping and applying warm upon Dossils or Pledgits some of these following Digestives: For Tents are to be used with caution in these VVounds. Cure.

℞ *terebinth. lot. in spir. vini* ℥iiij. *thuris, myrrhæ, mastich. an.* ʒj. *ol. hyperici* ℥iij. *vitell. ovor. num.* ij. *croci* ℈ij. Or, ℞ *terebinth.* ℥ij. *myrrhæ, thuris, corn. cervi usti, an.* ℈iiij. *ol. scorp. de castoreo, lumbricor. sambuci, an.* ʒ*ss. vitell. ovor. num.* ij. Apply either of these warm. If stronger be required, you have *ol. terebinth. de castoreo, scorpion.* &c. ℞ *ol. terebinth.* ʒj. *ol. hyperici, cum gum.* ℥ij. *euphorb. pulv.* ʒj. drop this very hot, and apply the forementioned Digestive over all, then embrocate the Parts about with *ol. lumbric. & hyperici*, and lay over all this following Cataplasm: ℞ *farin. hord. & fabar. an.* ℔j. *flor. cham. meliloti, ros. rubr. scord. absinth. pulv. an.* ʒvj. Decoct it in the Broth of Offal, if you would have it lenient, otherwise in Oxymel, adding *ol. ros. & chamæmel.* Or this; ℞ *mucilag. radic. althææ, consolid. maj. an.* ℥iiij. *flor. ros. rubr. beton. cham. subtil. pulv. an.* ʒ*ss. farinæ lini, fœnugræci, an* ℥iij. *farinæ hord. & fabar. an* ʒvj. *coq. in vino, adde ol. ros. & lumbricor. an.* ʒj*ss. mell.* ℥ij. *vitell. ovor. num.* iij. The Wound digested, you may deterge with this; ℞ *farinæ orobi* ʒj*ss. thuris, rad. ireos, an.* ʒvj. *succi apii* ℥iij. *mell. comm. & terebinth. an.* ℥ij. *Misc. fiat Unguentum.* The Wound deterged, you may dress it with this Sarcotick. ℞ *summit. hyperici, equiseti, plantag. beton. an.* Pj. *rad. consolid. maj. tormentillæ, an.* ℥iij. *sevi hircini* ℥iiij. *lumbric. terrest. lot. ol. mastich. an.* ℥ij. *vini odorif. q. s. coquant. ad consumptionem vini, postea colentur cum forti expressione, deinde adde resinæ pin.* ʒj. *thuris, myrrhæ, mastich. aloes, an.* ʒ*ss. ceræ* ℥iiij. *Misc. fiat*

Unguen-

Unguentum S. A. Ol. Aparici is excellent in these Wounds, either alone, or heightened by any of the former Prescriptions: So is the Balsam in the Chapter of Wounded Nerves. If the Bone be bare, you must be careful that you do not foul it by your greazy Medicaments: And if Pain be violent, and yield not to Anodynes, cut off the affected Tendon, and whatsoever corrupts, lest it taint the rest. But in these great Wounds you are at first to consider how curable they are, and endeavour to preserve the Life of your Patient by a timely Extirpation, before his Spirits be too much exhausted. Of which this following Story will give you warning.

Observat. of a Shot through the Knee.

A Page of Lieutenant-General *D. L.* was shot through the Knee. The Bullet entred in by the lower and exteriour side of the *Rotulæ*, and passing through the Joint out in the hollow of the Ham, tare the Ligaments and Nerves, and fractured the Joint as it passed, rending the Artery in going out. This Wound was mortal the very minuit it was inflicted, and the party ought then to have been dismembred: But such Proposals were not admitted of in the first dressing, whilst there was, as they judged, hope. Afterwards the vehement pain brought suddenly on severe Accidents, as Fever, *Delirium*, &c. and then it was too late to make Amputation. I made my first Dressing by the Application of a Digestive dipt *in ol. lumbric.* warm, and embrocated the Parts about with *ol. ros. cum aceto*, applying my Restrictive over all. In the depending Orifice there was a throbbing of the Arterial blood, as in an *Aneurisma*, the blood being choakt in by the contused Flesh: It therefore was not there to be tented, for fear of making a Flux of blood; nor yet could we hope to stop the Bleeding by Cautery, actual or potential, that Part being full of Ligaments and Tendons, the burning whereof would have been difficult, and grievous painful. Wherefore I drest that Wound with the same Digestive mixt with *pulv. Galeni* upon Dossils with thick Pledgits, and some of the same Restrictive over that, with such Bandage as that Part was capable of; hoping this way to hinder the Influx of Humour, and thinking by such Dressings the Wound would digest. But the pain increased vehemently, and yielded to no Application, nor was there any possibility of conveying any Instrument, whereby I might thrust or pull out the Shivers of Bone, if any such were in between the heads of the Joint. Mr. *Penicuke*, formerly General Chirurgeon to the *Scotish* Army, and other Chirurgeons were with me at the Dressing of this Patient: But in spight of all our Endeavours, the Putrefaction increased, and was attended by *Delirium* and Spasm. Death followed, as commonly it doth in all such Wounds of the great Joints. I could instance it in many, but the late case of Sir *J. L.* may serve for all. He had many of our most experienced Chirurgeons, with the eminentest Physicians to help them; yet they had no better success. Therefore at Sea, while they are warm with heat of Fight, we dismember them, and by actual Cautery stop the Flux of blood.

CHAP.

Chap. VII.

Of Gun-shot Wounds in the Belly.

I Have now briefly run through the Parts not principal, and purpose next to say somewhat of the principal Parts, as the Belly and Breast. And that you may the more certainly know the Part wounded, I shall give you a short Description of them, and then shew you how such Wounds are to be handled in order to their Cure.

Abdomen described.

The Belly is called *Abdomen*, or the inferiour *Venter*. It begins from the Bastard-ribs, and extends it self to the Groins; and is divided into three Regions by our Anatomists, the upper, middle, and lowermost. The uppermost is called *Epigastrium*, the middle *Regio umbilicalis*, the inferiour *Hypogastrium*. The sides of the uppermost are termed *Hypochondria*. The right *Hypochondrium* possesseth all the Liver: In the left is the Spleen. Between these is placed the *Ventriculus*, or Stomach. In the middle part of the *Abdomen* is the Navel; round about which lie the Guts, and behind those on each side the Kidneys. In the sides of the inferiour part are the *Ilia*, with the *Pecten* or *Pubes* in the middle: Under which lies the Bladder. Thus much to the internal Delineation.

The *Abdomen* consists moreover of Parts containing, and contained. Parts containing, or Teguments of the *Abdomen*, are either the common, which reach all over the Body, as the *Cuticula*, *Cutis*, *Pinguedo*, *Membrana carnosa*: Or the particular and proper to this place, which are the Muscles of the Belly, the *Peritonæum*, and in respect of the Guts the *Omentum*. The Parts contained are some of them designed for the Nutrition of the whole Body, others for Expurgation, and others for Generation. The Stomach, Small intestines, *Mesenterium*, *Vena porta*, *cava*, *Arteria magna*, and *cœliaca magna*, the Liver and Spleen, serve for Nutrition. The Bladder, Gall, all the Intestines, but especially the great ones, Kidneys and Ureters, for expurgation. And for Procreation, the *Vasa præparantia & deferentia*, *Prostatæ*, and *Uterus* in Women. These parts containing and contained are subject to Gun-shot; whence various Species arise of these Wounds. Sometimes the containing Parts, as the *Cutis*, *Pinguedo*, *Caro musculosa*, only are wounded; so as neither the *Peritonæum* nor the other internal Parts suffer any hurt.

Wounds not penetrating.

And this hath happened to many in Service, who have been brought to me as mortally wounded, whereas upon search I have found the impression only upon a greazy Leather Jerkin, or their Bellies black and a little scratcht by the Bullet. Yet even these are subject to Tumour, and so do require lenient Embrocations, with an *empl. è bolo* or the like. In others the Skin, and Flesh under it, is sometimes wounded, and no farther. These are by us called Wounds of the Belly, not penetrating, and are cured as Gun-shot Wounds in Fleshy parts: In which cases all those Applications are approved of which have been delivered in Simple Gun-shot Wounds.

But this I must take notice of to you, as having often observed it, not only in Gun-shot Wounds, but in Abscesses of the Belly, that from the Laxity of the

the Parts, they are ſubject to great Defluxion: Eſpecially in ſcorbutical and ill Habits of body, the Matter is apt to inſinuate it ſelf amongſt the circumjacent Muſcles, raiſing them up, and rendring them Sinuous Ulcers difficult of Cure; and that becauſe we cannot make ſuch Bandage on them, by reaſon of their Figure, Site and perpetual Motion, as elſewhere may be made. Theſe thus briefly conſidered, we paſs to the other Species: For the Bullet is for the moſt part carried with ſuch force, that it not only wounds the Fleſhy parts, but alſo pierces the *Peritonæum*, hurting moſt an end the Internals; it being indeed impoſſible that the Bullet piercing the Parts containing ſhould miſs the contained, which are ſoft and tender.

Wounds penetrating.

I have ſeen ſometimes in the Wars a Souldier ſhot ſcarce to the *Peritonæum*, yet the Contuſion hath been ſo great, that the *Peritonæum* hath come off upon Digeſtion: In which caſe the Bowels commonly ſuffer under ſevere Colicks, and there ariſeth Difficulty of breathing, *&c.*

If the Bullet penetrates through the *Peritonæum*, though no farther, yet the Contuſion makes foul work, and requires ſpeedy relief. But if it hath wounded the internal *Viſcera*, then you muſt conſider what the Parts are that are wounded, whether the Liver, Stomach, or which of the Inteſtines; which you may apprehend from the Site of the Part, and the Accidents accompanying ſuch Wounds, alſo by the proper Symptoms of each Part.

Signs of Wounds of the internal parts of the *Abdomen*.

According to *Celſus*, *Lib.* 5. *Cap.* 26. the Liver being hurt, there followeth an Effuſion of groſs blood: If the *Porta* or *Vena cava* be hurt, the right *Hypochondrium* is oppreſt: If the Artery be wounded, the blood is florid, and burſts impetuouſly forth, and the Patient expires with it. But if the Stomach be hurt, *Singultus* or Hiccough follows, with Vomitting and *Nauſea*, and the Patients Suſtenance comes out of his Wound with the Chyle, and cold Sweats ſhew his languiſhing condition. If the leſſer Inteſtines be wounded, he will be troubled with poraceous Vomiting, and what he eats or drinks will paſs out of his Wound in leſs than half an hour; and ſo it will continue to do as long as he lives. If the great Inteſtines be wounded, the Excrements and filthy Smell will demonſtrate it. If the Wound be on the left *Hypochondrium* under the Short ribs, you may conclude the Spleen wounded; the blood which floweth forth is black; there is alſo a Tenſion, and Difficulty of breath. If the Kidney be hurt, the Wound is in the Region of the Loyns, near the *Vertebra* under the *Diaphragma*. The more certain ſign thereof is from the Pains reaching to the Groins and Teſticles, with difficulty of Urine: And that Urine which he voids is either mixt with Blood, or elſe pure Blood. If the Ureters be wounded, the Urine comes out at the Wound. If the Bladder be wounded, that part of the Belly is tenſe, he hath great pain in his Groin and his Urine is diſcharged by the Wound; the Stomach ſuffers by conſent, and the Part wounded demonſtrates it. If the Womb be wounded, the Groins and *Coxæ* are afflicted with the Pain, and the blood not only flows by the Wound, but *per Vulvam*; they are troubled in Mind, and have other ſhrewd Symptoms of Death.

Prognoſtick.

For what concerns the Preſage of theſe Gun-ſhot Wounds, if they be onely in the Region of the Belly, they are not without peril, eſpecially if the middle, where the *Linea alba* is: But if they penetrate, there is great hazzard, for theſe Parts ſo ſhattered ſeldome recover. What we have ſometime ſince ſeen, of a man diſcharging his Excrements out of the *Colon* on the left Side, and heard of other like Wounds of the Stomach, are rather Miracles than the work of the Chirurgeon. But they were happy that were inſtrumental in thoſe Cures. If *Celſus* in his time determined thoſe VVounds mortal made by cutting VVeapons; how much more muſt they be ſuch that are made in our age by Gun-ſhot? Yet Nature, as one ſaith in his *Vulneribus*, *ſæpe miracula facere*

facere solet, is often as merciful and miraculous in the Cure, as the Blow was cruel.

In order to the *Cure*, you must begin with the Extraction of the Bullet, lest it sink into the most inward Parts, and there afflict the *Viscera*; as also of the Rags carried in with it, lest they beget Putrefaction. That done, you must reduce the Intestines and *Omentum*, lest they inflate and corrupt. After the Extraction of the extraneous bodies, you must hasten Digestion, and mitigate the Inflammation. Cure.

The Intestines and *Omentum* are disposed to Reduction by warm discutient Fomentations: But if there be not an Opening wide enough, you must enlarge the Wound. If the *Omentum* be corrupted, make a Ligature below that corrupt part, and cut it off, leaving the end of the Ligature hanging out, till it shall be cast off by Digestion.

If there be *Hæmorrhagia*, you must inject such Medicaments as have a refrigerant and astringent quality: And those may be, *aq. urtic. plantag. spermat. ranar.* or Red wine, *cum. syr. de ros. sicc.* with *pulv. bol. Armen. terr. sigill. sang. dracon. aloes, thuris.* Make a Mixture of some of the same Powders with a new-laid Egg, *ol. mastich. & lumbricor.* and apply it upon a Tent fastened to a Thread, as is before described, then spread the rest upon a Stupe, and lay it over all. But if there be no Flux of blood, digest as fast as you can.

In order to the Cure, *Fallopius* hath recommended to our use this following, by the use whereof he cured Wounds of the Stomach and Intestines. Wounds of the Stomach and Guts. ℞ *fol. pilosellæ, plantag. rad. tormentill. consolid. maj. flor. hyperici:* decoct these in Red wine; strain it out, and add to the said Liquour *mannæ, thuris, ol. mastich. resin. abiet. terebinth. Cypriæ croci & verm. terrest. an. q. s. fiat Sarcoticum S. A.*

In all these Wounds of the Belly I have used such like Medicaments as I have offered unto you, and applied to the Wound it self Digestives, as in Simple Gun-shot, and endeavoured by good Fomentations, Embrocations and Cataplasms, to preserve the natural warmth of the Part.

In Wounds of the Kidneys, you must inject such Medicaments as have an abstersive and drying quality; as *rad consolid. irid. aristoloch. rot.* also *myrtill. caud. equin. plantag. balaust.* Decoct these in *aq. chalybeat.* adding afterwards some Red wine and *syr. de ros. sicc.* thereto. Then dress up the Wound with a Digestive *ex terebinth cum integr. ovo.* with a little *terra sigill. thus* and Mastich, and embrocate with *ol. hyperici*; applying *empl. diachalcith.* malaxt with *ol. ros.* or a Cataplasm. *ex far. hord. fabar. & orobi* decocted in Oxymel, and made up with a new-laid Egg and *ol. ros.* Wounds of the Kidneys.

If the Liver or Spleen be wounded, there will be a great Flux of blood; in which case I offer this to you: ℞ *plantag. pentaphyll. polygon. millefol. myrtill. ros. rubr.* decoct these in chalybeat Water. You may use it as an Injection, with an addition of *syr. de ros. sicc.* or you may add to it *pulv. thuris, sang. dracon. bol. Armen. acacia*, and so it may be applyed as a Liniment upon Tents or Pledgits. Wounds of the Liver, Sleen, &c.

Thus you are to dress all the Wounds in the particular Parts of the Belly.

The Wounds of the Womb are accounted deadly, the very least of them, and so are all the abovesaid made by Gun-shot; yet you are to proceed in the universal Regiment, and with Clysters, Bleeding, and good Vulneraries, endeavour to dispose the Parts to Sanity.

Chap. VIII.

Of Gun-ſhot Wounds in the Thorax.

AMongſt the principal Parts which are ſubject to Gun-ſhot, the middle *Venter* or *Thorax* is reckoned, with the Parts contained in it, *viz.* the Heart, Lungs, great Artery and Veſſels, with the *Mediaſtinum.*

Difference. Theſe wounds are diſtinguiſhed as thoſe of the inferiour *Venter.* Sometimes the VVounds are only of the external Parts, without penetrating into the Breaſt; othertimes they penetrate through the Ribs and *Pleura*: In which latter caſe the principal *Viſcera* are wounded, or not wounded.

Not penetrating. If the VVound do not penetrate into the Cavity of the Breaſt, but is only in the Muſculous fleſh, it muſt be cured as VVounds in the Fleſhy parts. If there be a Fracture with it, it muſt be treated as a VVound with Fracture, taking care to extract the broken Bones, leſt they prick the *Pleura*, and cauſe Inflammation.

Penetrating Signs. But if the Bullet hath penetrated deep into the Cavity, it may be diſcerned by the paſſing forth of the air with noiſe: There will alſo follow a Flux of blood by the VVound, or Mouth, or by both; unleſs the blood fall down upon the *Diaphragma*; and then the Difficulty of breathing and ſuch like Symptoms will demonſtrate its Penetration. And if the Lungs be wounded, there will be a Cough, with Difficulty of breathing, and frequent Sighing: if there be an effuſion of blood, it will, accordingly as it is much or little, flow forth of the VVound, or be cought up, ſometimes both: The Patient will incline to lie much upon the VVound. If the Heart be hurt, the blood floweth impetuouſly, and is reeking hot, their Spirits ſink, and cold Sweats bedewing their Face foreſhew their approaching Death.

The wounded *Diaphragma* is accompanied with Difficulty of breathing, alſo a Hoarſneſs, with great Pain about the falſe Ribs; the *Diaphragma* is drawn upward, and the Spine is affected.

If the great Vein or Artery be hurt, a terrible Flux of blood follows. If it flow from the right Side, the *Cava* is hurt; but if from the left Side, we ſuppoſe it the Artery. You will diſcover it by its Saltation and florid colour. If the *Porta* be wounded, the Patient dies at the inſtant; and ſo he doth of all the reſt. If the *Spinalis medulla* be wounded, the Nerves are reſolved, and a Palſie follows, but more immediately in the Part under the VVound.

Almoſt all theſe VVounds made by Gun-ſhot are mortal; but it is not conſiſtent with Religion or Humanity, to leave ſuch people without help: For ſometimes we haply prolong the life of ſome of them, and now and then cure one.

Cure. I ſhall therefore proceed to deliver you what concerns their *Cure*, both as to the internal Remedies given by the Mouth, and to thoſe which relate externally to the VVounds.

In

In the first place, you must make Extraction of the Bullets and other extraneous bodies, Shivers of Bones, *&c.* to give way for the discharge of Blood and Matter contained in the Cavity of the *Thorax*: then dress the Wound with a Tent dipt in this or such like; ℞ *bol. Armen. corn. cerv. ust. ol. ros. & sambuc. farin. volatil. cum ovo integr. Misc.* Spread a compress with some of the same, and apply it over the Wound. If the blood stop not by this Dressing, let blood in the Arm, and repeat it as often as you see cause, applying some of the Astringents set down in the preceding Chapters. Or you may inject some astringent Decoctions, which is otherwise than was advised in Wounds made by Puncture: For in Gun-shot Wounds the Orifice is wide enough for the Injection to return out again, insomuch that not only the astrictive Intentions ought to be pursued, but also the detersive; here being loss of Substance. Therefore in case of Bleeding you may inject a Decoction of *fol. plantag. ulmi, urticæ, vincæ pervincæ, ros. rubr. fol. myrtill. in aq. germ. querc.* adding a little *bol. Armen.* and *syr. de symphyt.* Or for present occasion use Red wine, it being excellently good in such bleeding VVounds, either given inwardly by the Mouth, or cast in by a Syringe. Having thus stopt the blood, you are to digest the VVound with such like: ℞ *terebinth. lot. in decoct. hord.* ℥ij. *pulv. thuris, myrrhæ, an.* ℈ij. *sem. fœnugr. pulv.* ʒj. *ol. hyperici q. s.* Arm short Tents with some of it; then apply over it a Pledgit with some of the same, or with such Suppuratives as in Simple Gun-shot VVounds are prescribed, and embrocate the Breast and Parts about with a Mixture of *ol. amygdal. dulc. lumbric.* and *unguent. dialthææ*, applying over all an *empl. diachyl. simpl.* malaxed in some of the same. After Digestion you will find it necessary to deterge and incarn. It is not material whether the Detersion be made by Injection or Unguent, there may be use for both; to which purpose I have set you down both sorts, and shall begin with an Injection, as supposing the matter may thereby be disposed to discharge by the VVound. The milder may be a Decoction of *pilosella* with *mel. ros.* If stronger be needed, ℞ *extract. scord.* dissolved *in vino albo*; or, ℞ *fol. pilosellæ caud. equin. plantag. tormentill. consolid. aristoloch. rot. rad. iridis, & sarcocoll.* boil these *in aq. font.* adding VVine thereto with *mel. ros. q. s.* The Unguent may be this following Mundificative: ℞ *terebinth.* ℥ij. *farin hord. cribrat.* ʒj. *thuris, sarcocoll. rad. iridis, an* ʒiij. *mellis ros.* ℥iiij. *Misc. S. A.* and dress the VVounds in the Fleshy parts with the same. The VVound deterged, incarn and cicatrize as is said in other VVounds; but keep a *Cannula* in it until it cease to run. *Celsus* proposes, that in all these internal VVounds the external Parts be vesicated, to make more powerful Revulsion from within: And the Medicament he proposes thereto is *Sal bene contritus cum cerato mixtus, quia leviter cutim erodit, eoque impetum materiæ quo pulmo vexatur evocat.* This his proposal may be proper in VVounds made by sharp VVeapons, as by Arrows, *&c.* But here in these VVounds there is vexation enough outwardly to make a Revulsion, if that signified any thing. In the dressing these you must be careful to cut off the Sloughs without, lest from them a stinking Gleet distil upon the *Viscera* within. In order to the Cure, Clysters are also required, to keep the Body open: And the more temperate Pectoral Decoctions are here proper, such as that in the *London Dispensatory.* To them may be added *syr. violar. de cichor. de liquiritia, jujub. capill. ven. de symphyto*, and such Lohochs as may take off the harshness in the *Aspera arteria.* Their Diet ought to be slender, and their Drink: Medicated Ale or *Hydromel* wherein Pectorals have been decocted are proper in all these VVounds; so are also Emulsions: And after the Fever and such like Accidents are diminished, Asses and Goats milk may be necessary; yea a Diet of Cows milk alone, or mixed with distilled Milks, and sweetned with Conserve of Roses. But this will be

work for the Phyſician, when they come aſhoar. Many Inſtances may be given of Gun-ſhot in the Breaſt: But few do recover that are ſhot into the Lungs.

Obſervation. At the Battel of *Worceſter* there was one brought to us ſhot with a Musket-bullet through one ſide of the *Sternon*, which paſſed out between two of the Ribs on the other ſide, without any viſible Symptom of danger. We dreſſed the Wounds with a Digeſtive dipt *in ol. lumbric.* warm, and kept the lower Orifice between the Ribs open for diſcharge of the Matter, it being the depending Orifice. He was let blood, and preſcribed Pectorals, *&c.* as occaſion offered. His Wound digeſted, and was afterwards deterged with *mel roſar.* &c. After our Defeat he was dreſſed by *Will. Clarke*, now of *Bridgenorth*; and, as I have been ſince informed by him, was concealed by ſome Houſekeeper until he made his eſcape.

Obſervation. From the Defeat of the *Scotiſh* Army near *Dunbar* there came many of the wounded to *Saint Johnſtons*, and amongſt them there were ſeveral wounded into the Breaſt. They who were ſo ſhot as to have the Ribs broken, were in extream Pain from the Shivers: VVhereas the reſt whoſe Bones were not hurt had ſcarce any Pain at all, but what proceeded from difficulty of breathing; they all coughing up a ſtinking *Sanies* both before and after the ſeparation of the Sloughs. One of them cought a very great proportion daily of thin Matter, of a brown colour and rank ſmell. None but this died under my hands; the reſt after ſome while retiring to their homes, where (as I have often heard them ſay) their Leeches performed great Cures, by virtue of ſome Plants which they gave internally, and which with Fats they made Balſams of. Yet I believe this man died tabid.

Chap. IX.

Of Symptoms of Gun-ſhot, (omitted in the Fourth Chapter.)

THE Symptoms attending Gun-ſhot are Pain, *Phlegmon Eryſipelas*, Fever, *Delirium*, *Syncope*, Gangrene, Convulſion, and Palſie. The Pain occaſions Inflammation, whether it be *Phlegmon* or *Eryſipelas*, of both which I have elſewhere purpoſely treated. But that of Gangrene I thought fit ſhould accompany Gun-ſhot, they of all Wounds being moſt ſubject to it. The Fever is ſymptomatical, ſo is the *Delirium*, and will go off with the Pain; but may, with the forementioned Inflammations, be relieved by Bleeding and lenient Purgatives, ſuch as I have mentioned. And to fortifie the Spirits againſt Fainting, which proceeds from putrid Vapours affecting the Heart, there are Cordials and *Epithemata* already preſcribed. So that there remains only Convulſion and Palſie to be here treated of.

Con-

Convulsion is, An involuntary Contraction of the Nerves to their original, by which Contraction the Member is also drawn up; and it is said to be caused by Repletion and Inanition. In this our case it ariseth from putrid Vapours, or acrid Matter offending the Nerves, which is often found in these Wounds. The Part affected is the Brain, which being thus provoked causeth an involuntary Contraction and Rigidity in Parts dismembred, as near the Knee or Shoulder. There the Contraction cannot be discerned but by a Trembling, which Trembling is usually attended by a Convulsion of the Joints. It likewise follows upon great Inflammation, especially in the Nervous parts. The Prognostick here is always fatal, a Convulsion upon a Wound being the forerunner of death. Convulsion.

In the Wars I was called to see a poor Souldier, who had his Arm shot off near the Shoulder. The bruised and shattered Stump seemed to his Chirurgeon to be gangrened, and accordingly he drest him with *Ægyptiac.* as a Gangrene: From which sharp dressings the Wound gleeted, and, by reason of the Pain, inflamed. He had roared some days through the vehemency of that Pain. When I came to him, I saw a great Trembling of the Part, and a frequent twitching upwards of the Tendons and Musculous flesh in the Stump; also the Flesh in the whole Stump was of a whitish colour, as if it had been scalded. I drest him up with Anodynes, as *Liniment. Arcei cum vitell. ovi*, and fomented the Part with *fol. malvar. violar. thapſ. barbat.* decocted in Milk, embrocating it *cum ol. lumbric. & ex ped. bovinis*, and applied *empl. diapalmæ cum ſuccis* over all; then anointed the Parts about, as the Neck and Spine, with *unguent. nervin.* I also blistered the Legs and Thighs: But it was too late, he died howling. Observation.

Paralyſis is generally defined, A privation of sense or motion, or both, in some Part or Parts, and affects the Brain and *Spinalis medulla.* But in Palsies which arise from Wounds the Parts immediately affected are the Nerves of that place only. This doth not take away the life of the Patient, though it may sometimes threaten a Mortification through defect of natural heat in the Member. Palsie.

In a Sea-fight an *Iriſh* Mariner having discharged his Gun, which was hony-combed, and loading it suddenly again, whilst he was ramming in a Cartridge, the Powder took fire, and shot the Rammer out of his hand, tearing the Palm of his hand, also some of his Thumb and Fingers. The Wound was not considerable, but the force of the Blow extinguished both sense and motion of the Member. I drest him up with our common Suppurative, (of which at such times we had great quantity ready,) and applied over all a common Restrictive, so rowled it up, there being then no time for Bleeding him. But after the Fight I let him blood, and a day or two after purged him, then fomented and embrocated the Member with *ol. lumbric. cham. anethi, lilior. unguent. nervin.* and such like, and did all that we Chirurgeons of the Squadron thought fitting; but without success. One night after he was cured of his Wound, lying asleep in his Hammock, he was wakened by the wet he felt upon his Breast and Belly; and getting up to a Candle, he found the Dressing upon his Hand all bloody, as also the place whereon it lay. I being called took off his greazy Dressings, and found the Palm of his hand and Fingers gnawed by Rats. They had eaten through the oiled Cloths, and had gnawed his Hand more, if he had not wakened by the trickling of his blood. I drest his Wounds with Digestives to hasten Suppuration, supposing the discharge of Matter might contribute to his Recovery. After I had cured them, I made him a Fontanel in that Arm, and bathed the Member frequently, also cupped and scarified it; and afterwards applied Observation.

applied Plaisters of Pitch, to stir up a heat in a Member. He was a young man, and otherwise of a strong Constitution, and was not over-solicitous to have it cured, as designing to make some profit by it. To which purpose he took an opportunity of landing, and hastened away to *Madrid*: VVhere having gotten some reward for his service, he returned to the Navy, and had more use of his Arm.

Paralysis doth often happen in great Contusions and Luxations; of which more elsewhere.

A N

AN APPENDIX To the Treatise of Gun-shot Wounds.

To the Reader.

HAving thus finished the Treatise of Wounds, *I considered with my self that my Design was to help the Sea-Chirurgeons, who seldome trouble their Cabbins with many Books. I therefore thought it convenient to make this as comprehensive for their use as I could, by comprising in it all those things which may easily be foreseen to be of use to them in other cases besides Wounds. We know by our experience, that Burning by Gun-powder and other materials do too frequently happen at Sea; and also, by ill Dressings of Wounds, Gangrenes and* Fistulæ *arise, and that much the sooner, if broken Bones, especially those with Wounds, be not well brought together, and so held. All which matter we occasionally handled in the foregoing Work: Yet not so much, but that, for their farther Instruction, I thought it requisite to anticipate something of other Discourses which I intend for the Press, by the following* Appendix; *which if well perused, may perfect the Chirurgeon in what remains to be known concerning Wounds, and save him the labour of reading many Authors.*

CHAP.

Chap. I.

De Ambustis, *or, Of Burns with Gun-powder,* &c.

Forasmuch as it often happens, that in close Fights at Sea men are sometimes burnt by Gun-powder by their Enemies, and by various Accidents amongst themselves; I shall therefore deliver to you the most plain way of curing them. For, however people cry, It's nothing to cure a Burn: Yet by what I have seen of these Cures from Country or City, they are often very ill performed. VVhether they are burnt by Gun-powder or any other way, their Cure is much alike, they only differing *secundum magis & minus.* Only if they be burnt with Gun-powder, they must pick out the Powder first; else they will carry the same blew Mark, if it be in their Faces, which some people use to do in their Hands and Arms, which I have often been imployed to take out, when done wantonly in their youth; but could never remove them otherwise than by taking off the Skin.

If the Burn be superficial, it raiseth the *Cuticula* up in Blisters: If it go deeper into the Skin, it causes an Eschar: If it burn deeper into the Flesh, the force of the fire makes a hard Crust with a Contraction. In all these the Pain is excessive.

Once as I was dressing a gangrened Leg with warm Spirits of *terebinth.* &c. Mr. *Arris* and Mr. *Hollyer* Chirurgeons and others being close about me, and I upon my Knees, the Candle being too near the hot Spirits, catcht the flame, and burnt my Thumb and Fingers before I could get free from those behind me to throw it into the Chimney, which was some distance off. I felt much more Pain for the while in the superficial Scalding, than where it was burnt to an Eschar.

Cure of a Burn. The Indications of *Cure* are of two kinds: *viz.* either by Refrigerants to bath or anoint the Part, until the Heat be off, and the Eschar separated, and then to digest and cicatrize; or by calefactive Medicaments to relax the Skin, and resolve and dissipate it, which by accident will asswage the heat and Burning. The Refrigerants are, *aq. solani, plantag. hyoscyam. lac ebutyratum*; and all the cooling Juices and Unguents, as *unguent. album, nutritum, populneum, rosat.* &c. These must be used warm, until the Heat and Pain cease, or the fire be taken out, (as the common expression is;) else they will rather cause Pain. Hot Medicaments asswage the fiery Heat and Pain by Rarefaction. Which in the first place may be done by the holding a burning hot Iron or Fire to the Part: So whilst the Fire calls forth that Fire it made, it becomes its *Alexiterium.* But the common remedy is, to apply Salt and an Onion beaten together. But this is not to be done after the Blisters are risen, nor by any means where the Part is raw; for so you will exasperate the Pain, and increase the Inflammation. There are many other things do extinguish the Fire. *Fimus equinus* doth it, fried *in ol. nucum, uvæ immaturæ, sambucus,* and *ebulus in oleo coct. calx viva extinct. & cum unguent. rosaceo mixta ad consist.*

Refrigerants.

Calefaction.

un-

unguenti. Theſe are to be renewed often, until the Pain and Heat be off, which they in few days effect. If theſe Applications do not prevent the riſing of *Veſiculæ*, you muſt cut them as they ariſe, leſt by their eroſion they make hollow Ulcers, and inflame with ſharp Pains, Fever, *&c.* But where they are burnt to a Cruſt or Eſchar, you muſt haſten its fall with Emollients, then digeſt, incarn, and cicatrize.

Here is required Bleeding and Evacuation by Lenients: but if there be *Cacochymia*, you muſt purge more powerfully. A ſpare Diet is requiſite, with all other Regulation proportionably according as the Burn is greater or leſs. I ſhall give you for your farther information two remarkable Inſtances of Burns: the firſt in the Wars, occaſioned by Accident thus. Regiment in Burns.

A Souldier in the time of ſervice being in the Fort-Royal at *Worceſter*, haſtily fetched his Bonnet full of Gun-powder; and whileſt he was filling his Bandeliers, another Souldier careleſly beſtrides it, to make a Shot at one of the Enemies which he ſaw lying *perdue*. In firing his Musket, a ſpark flew out of the Pan, and gave fire to the Powder underneath him, and grievouſly burned the Hands, Arms, Breaſt, Neck and Face of him that was filling his Bandeliers. And as to himſelf, he likewiſe was burned and ſcorched in all the upper part of his Thighs, *Scrotum*, the Muſcles of the *Abdomen*, and the Coats of the Teſticles to the *Erythroïdes*, ſo that the Cremaſters were viſible. And indeed it was to be feared, that, when the Eſchar ſhould caſt off from his Belly, his Bowells would have tumbled out. We dreſſed the ſeveral Parts of them both with *mel ſaponis*, and embrocated the Parts about *cum ol. roſ. & albumine ovor.* beat together, and let them blood. I did not ſee the iſſue: but *Will. Clarke* who was then one of my Servants, and aſſiſted me in the dreſſing them, ſtaid there, and attended their Cure, after the Defeat of our Army. And he lately told me, he cured the latter of theſe with *unguent. tutiæ*, &c. and the former made his Eſcape out of Town. 1. Obſervat. of burning with Gun-powder.

A young Gentleman of about ten years of age, boarded at a School a few miles off, the Evening before the fifth of *November* having filled his right Pocket full of Squibs and Crackers, threw one of them into the Chimney amongſt the Embers. It took fire: but whether it ſcatered the Fire, and ſome ſpark of that flew into his Pocket, or whether it was the Cracker, but thoſe in his Pocket took fire alſo, and his Cloaths burnt. At the ſight whereof his little Chamber-fellow ran out for help. In his abſence a little Boy from ſome other Apartment took the alarm, came in, and ſeeing his School-fellow in a flame, catched up a Baſon of water, and threw it upon him; then ran away for help. Others came in and reſcued him out of his burnt Cloaths. A neighbouring Chirurgeon was ſent for, who dreſſed him. The next day they brought the Patient to Town. I found him burnt into the Fleſh from a hand's breadth below that Arm-pit down that Side, with part of his Belly, and from thence it ſpred down to the *Os ileon* and *Gluteus*, and along the Thigh almoſt to the Knee. And by endeavouring to free his Pockets of the Crackers, he alſo burnt his Hand from the Fingers ends along the inſide of his Arm to his Elbow-joynt. The Parts which were burnt to an Eſchar I anointed with *mel cum ſucco cepar. & pulv. iridis* mixt, and fomented the Parts about with a Decoction of *hyoſcyam. malvar. ſolan. violar. ſem. cydon. pſyllii*, adding to it a third part of *lac ebutyratum*, and embrocated the other Parts with *unguent. ſtramon.* He ſhould have been let blood, but would not. Clyſters were admitted, and Pearl-Juleps and Ptiſans preſcribed, his Fever being very great by reaſon of the Pain. As the Bliſters aroſe, we ſnipt them. Thoſe which were raw I dreſt with fine Lawn dipt in the foreſaid Decoction; and with a Feather dipt in *unguent. de* 2 Obſervat. of a Burn with Gun-powder.

ſtramon. mixt with *ol. amygd. dulc.* anointed the Lawns: by which means thoſe places which were ſuperficially burned healed. As the Parts deeper burnt threw off their Eſchars, I digeſted them with the Yolk of an egg and a little *terebinth. lot. in aq. ſolani*, adding ſome *farin. hord.* finely ſearſed *cum ol. amygdal. dulc.* Upon others I applied *unguent. diapomphol.* and anointed the fretted edges with *unguent. de ſtramon.* To others I uſed *unguent. album camph.* mixed *cum albumine ovi.* Thus each Part required to be particularly conſidered, and ſpecial care was taken that no Matter ſhould be any where pent in. In theſe large Burnings there are required variety of Intentions at one and the ſame times. Some require Anodynes, others Detergents and Digeſtion, others Deſiccants. Some of the Parts require to be dreſt twice aday; others but once. Some of them I dreſt with this Unguent: ℞ *ol. ſambuc.* ℔j. *ceræ* ℥iij. *litharg. aur.* ℥ij. *ceruſſæ* ℥j. *calcis lot.* ℥vj. *thuris & ſarcocollæ an.* ℥iij. *fiat Unguentum S. A.* Upon ſome of theſe Lawns I laid afterwards Pledgits dipt in a Solution of *troch. alb. Rhaſ.* made in a Decoction *equiſeti, roſ. rub. & ſummit. rubi*, to cicatrize them. Thus I happily cicatrized this young Gentleman's Ulcers even and ſmooth without the leaſt Inequality, nothing remaining but the red colour to make it diſcernable.

Several indications in a large Burn.

And I muſt tell you, in theſe great Ulcers it will require your care that no *Hyperſarcoſis* grow upon them, for thereby the *Cicatrices* will be deformed. I have had ſome Perſons of good quality come to me ſo deformed with theſe, that they have ſuſpected them to be Wenny; and where they have happened upon Womens Breaſts, they have ſuppoſed them Cancerous. In others, from ill Chirurgery, the looſe Fleſh hath grown ſo high and callous, that one of them who came into my hands required to be burnt again in order to his Cure. In the Face there is a ſpecial care to be had, as alſo in the Neck and Breaſts of the Female Sex. A great care muſt be had likewiſe of the Eyes, that they be not daubed with greazy Medicaments, and that the Lids be not dreſt with too drying ones, leſt they contract and make a Bleareдneſs. In the Cure of the Eyes you may uſe Pigeons blood, Breaſt-milk, *aq. ſolani, plantag. roſ. poma, ſem. cydon. fœnugr. troch. alb. Rhaſ. tutia, lap. calam. thus, ſarcocoll.* waſht or not waſht. I have ſeen the Ears for want of care adhering to the Scalp, alſo the Fingers to one another, and in others cloſe contracted to the Palm with hard *Callus*. In that caſe of the Ear, I divided the *Callus* by Inciſion, and applied ſoft bits of Linen dipt in *aq. ſpermat. ranar.* between the Scalp and lower part of it, which was rumpled up. Afterwards I rubbed the unequal *Callus* with the Cauſtick-ſtone; and as the Eſchars ſeparated, I cicatrized them with the Vitriol-ſtone, *unguent. deſiccat. rub.* &c. and left the Part in its natural ſhape. Where the Fingers have been all grown to one another almoſt to the middle Joynts, I have ſeparated them by Sciſſors and Knife, and afterwards by the Cauſtick-ſtone rubbed the *Cicatrices* off, and healed them ſmooth.

Medicines for Eyes burned.

A Boy came out of the Country with all the Fingers of his right Hand cloſe contracted. I cut the *Cicatrix* of each Finger, and cauſed a Rowl of wood to be placed under his crooked Fingers, which being carried with Bars to the inward part of his Wriſt, and faſtned by Screws, thruſt the Rowl gradually forward, till it had born all the Fingers before it, and by a compleat Extenſion reſtored them to their former liberty. The Wriſts and other Joynts would be ſubject to the ſame inconveniences, if they were not prevented by the knowing Artiſt, without whoſe help the beſt Medicaments ſignifie little.

3. Obſervat. of Fingers burnt.

CHAP.

Chap. II.

Of Gangrene and Sphacelus.

THE moſt cruel Symptoms that attend Gun-ſhot and great contuſed Wounds are *Gangræna* and *Sphacelus*.

Gangrene is a tendency to Mortification: it invades the ſofter Parts, as the Skin, Fleſh, *&c.* and is the beginning of a *Sphacelus*. Definition.

Sphacelus is a perfect Mortification, with the extinction of the native Heat and privation of Senſe, not only in the Skin, Fleſh, Nerve, Artery, but the very Bones.

They differ from one another, as the Mortification is more or leſs. Difference.

The *Cauſes* of Gangrene are various, *viz.* whatſoever deſtroyeth the natural Heat: as Interception of the motion of the blood by over-ſtrict Bandage in Wounds and Amputations, want of timely extracting of extraneous bodies in Gun-ſhot, *&c.* from whence Pain and Fluxion do ariſe; ſo exceſs of Cold in hard Winters, alſo in Old age, and the like. A Gangrene doth ariſe alſo in Phlegmons, through the unſeaſonable application of over-cold Medicaments; or for want of timely Digeſtion; or by exceſs of Heat, ſuch as becometh cauſtical, as we find in Carbuncles and all Eſchars. But that which moſt of all contributes to it is the Degeneration of Humours in unſound Bodies: in ſome of which not only all great Operations, but even the application of a Cauſtick, cutting a Corn, or pairing a Nail of a Toe to the quick, will endanger Mortification. Some I have ſeen (you may call them Scorbutical perſons if you pleaſe) who upon the appearance only of a ſmall black Spot on the Foot without Tumour, have ſuffered a very quick unavoidable Mortification. But I would not have you therefore conclude every Scorbutical Spot a Gangrene: for this latter lies dry in the Skin without either Inflammation or Pain. Cauſes.

In one of the aboveſaid caſes, where the Gangrene was ſtopped by the ſpeedy aſſiſtence of Art, an Apoplexy followed in few days after: of which more anon.

The *Signs* of a Gangrene are, change of the natural colour in the Skin to a pale livid, with diminution of Tumour; Bliſters alſo ariſe, and the Part turneth black ſoon after. In Wounds, the Lips ſink and are flaccid; a Gleet followeth, and the Fleſh within withers; alſo the Pulſe and Senſe in the Part do both languiſh. Signs.

A perſon having been ſhot in the Arm, and the Wound undigeſted, I being conſulted adviſed the laying open of the Wound, and extraction of the Bullet, Rags, *&c.* but was over-ruled by others, and it was deferred to farther conſideration. Two days after I viſited the Patient, and asked the Chirurgeon whether he had laid open the Wound. He replied, there was no need, for he could turn his finger in it, and pull out the Bullet and Rags, if it was neceſſary. As I was going out of the houſe, I met the Phyſician, who inquiring of me the Patient's health, I replied that the Chirurgeon had unwittingly given me the certain ſign of his Death. For *in magnis vulneribus & pravis, ſi Tumores non appareant, ingens malum.* That was a great Wound, and not Obſervation.

being digeſted, ſhould have been accompanied with Fluxion and Inflammation; the Lips ſhould have been full, the Orifice contracted: but on the contrary, the Heat was decayed, the Lips were lank without ſenſe, and at that time Sphacelated. A day or two after he died, too certainly juſtifying my Prognoſtick.

Sphacelus is diſtinguiſhed from a Gangrene by the total Corruption and Stink, it being alſo inſenſible both of Knife and Fire. If a Gangrene proceed from Pain, the Tumour and preceding Inflammation will ſhew it, and the ſudden ſinking of that Tumour is the beginning of the Gangrene. If the Gangrene be from Cold, the Part is firſt benummed, then accompanied with a pricking Pain, alſo a Redneſs, which by degrees turned black, and a Horrour and Rigour ſeizeth upon the Patient. If it be from Interception of the Spirits by reaſon of over-ſtrict Bandage, there is neither Fluxion nor Pain, but a Flaccidity joyned with an Inſenſibility in the Part. If it be from Old age, the Patient is lean, nature viſibly decayed, his Legs and other extremities are firſt ſeized, and the Part is moſt commonly without Tumour.

Prognoſtick. All Gangrenes are dangerous as threatening the Life of the Patient they affect. Thoſe that begin in the external Parts by reaſon of Inflammation are of leaſt danger, if the Habit of body be tolerably good, and the Mortification timely treated. Thoſe that ariſe deep within the Wound from Gun-ſhot or fractured Bones are extremely hazzardous, eſpecially if they be in or near the Joynts, though the Habit of body be good.

Gangrenes ariſing from Parts abounding with too much Humidity are in great danger, for thereby the natural Heat is ſoon overcome: for which reaſon Gangrenes in very fat and Hydropical bodies, eſpecially in the latter, are rarely extinguiſhed. So alſo thoſe ariſing from an internal cauſe are exceedingly more dangerous than thoſe that ariſe from an accidental. Yet in all theſe there are ſome hopes of Cure. But in *Sphacelus* there is no remedy, ſave only by a ſpeedy ſeparation of the ſphacelated Part: for if any of it remain, it ſoon creepeth up by the Nerves, *&c.* and infecteth the whole Member, and is accompanied with Watching, Raving, frequent Faintings, Convulſions, Hiccough, and cold Sweats; which foreſhew the Patient's approaching Death in the Treatiſe of *Tumours*.

Cure. In the *Cure* of Gangrenes, I ſhall begin my diſcourſe of that which ariſeth from Pain with Flux of humours and Inflammation. Theſe moſt frequently attend great Contuſions, Gun-ſhot Wounds, *&c.* and by ſuffocating the native Heat produce Mortification. In which caſes a cooling and ſlender Diet ought to be obſerved: the Humours abounding in the body muſt be evacuated by Bleeding and Purging: Revulſion ought alſo to be made to avert the Humours from flowing to the diſeaſed Parts. For the rational performing of which I refer you to the Chapter of a *Phlegmon* in the Treatiſe of *Tumours*.

Cordials and Epithems are alſo neceſſary, to reſiſt the Putrefaction, and ſtrengthen the Vitals, from what cauſe ſoever the Gangrene ariſeth. For your choice of which I refer you to the Chapter of a *Carbuncle*, which is another ſort of Gangrene. Having thus provided in general, we ſhall in the next place conſider the Part affected, whether it be only a Tumour, or a Wound with a Tumour, *&c.* In which latter, if the Tumour and Inflammation have been very great, and it change colour ſuddenly, and ſink, the Pain continuing, you may conclude a Gangrene beginning. And if there be a Wound or Abſceſs, and that Wound, *&c.* grow more painful, if the Fleſh alſo loſe its ruddineſs, and look pale and withered, and the Matter change to be thin and gleety, you may ſuſpect it corrupting: in which caſe it will be neceſſary that you ſcarifie to the quick, and make it bleed freely. By your Patient's ſenſible feeling, and

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by the fresh trickling down of the blood, you may judge of the Mortification. But if the Gangrene have crept deeper, or arose from the bottom of the Wound, then scarifie accordingly unto the fleshy Parts: and if there be any Abscess lying under the Muscles or Lips of the Wound or Ulcer, let it out. If in making such Scarification you chance to cut some Vessel, whereby a Flux of blood happeneth, have a care you choak not the Heat of the Part by crowding in Dossills; for so the Mortification may be encreased. To avoid which, I do rather advise the actual Cautery, for thereby you will not only stop the Bleeding, but dry up the Putrefaction. After the use of it, dress up the Wound as hath been advised in the Chapter of Burning. If in scarifying you prick a Nerve or Tendon, you will encrease the Gangrene. So you may do if by the actual Cautery you burn them but in part, or if you apply sharp Medicaments on them when newly hurt by Scarification. For we frequently see great Fluxion arise from little Disturbances of the Nerves and Tendons. Therefore consider well, and if such lie in your way, you had better cut them off or burn them through, than scratch or prick them. For the confirmation hereof, you may see some Instances in the Cure of Ulcers amongst the Nerves and Tendons in the Treatise *de Strumis*. Whilst I was writing this, I cut off some of them in one Patient: they lying over the carious Bones would not admit of the coverture of a Pledgit without grievous Pain; but those once divided, the Ulcer grew easy. But if you meet with none of these Accidents, then, after Scarification, cleanse it of the clotted blood, by washing it with Brine, a strong *Lixivium* of Wood-ashes, or Tincture of Myrrh, *&c.* and fill up the Scarification with *Merc. præcipitat. troch. polyidæ, musæ*, or with Dossills dipt in *ol. garyophyll. terebinth.* &c. actually hot. *Unguent. Ægyptiac.* is also hereto useful, whether it be that made by the *Pharmacopœia Londinensis*, or by other Authours, with the addition of *sal Armoniac. nitr. theriac. camph.* &c. The usul Fomentation is a *Lixivium* wherein have been boiled *summit. absinth. centaur. min. carduus benedict. scordium, vincetoxic. rad. aristoloch. rot. rad. gentian. spir. vini*, &c. or that of *aq. calcis*, with a Solution of *Merc. sublimat.* or *aq. lap. medicament.* Cataplasms are also of use *ex far. hord. fabar. lupinor. lentium, pisor. Mithridat.* &c. boiled in a *Lixivium*, with an addition of Oxymel, *&c.* While these are are applied to the gangrened Part, a good Defensative should be laid upon the Joynt or Parts above; of which you may find choice in this Book.

In the dressing of these Mortifications, you ought to consider well in the application of your Medicaments, that you do not in the extinguishing one Gangrene raise another, by the too long use of sharp Medicaments. Therefore, when you shall feel the Ulcer warm, and find it cease gleeting, it may be reasonable to forbear the use of them, and to dress it up with warm Digestives, as *unguent. basilic. cum ol. terebinth.* hot: and after Digestion deterge with *mundif. ex apio magist.* or such like, according as the Sloughs require; then proceed by Sarcoticks and Epuloticks, as in such Ulcers hath been shewed.

1. Observat. of a Gangrene from strict Bandage.

OF Gangrenes from strict Bandage you may see several Instances in this Book. The Cure differeth not from that of others made by Fluxion: but they are much more hopeful, considering the cause may be so easily removed by the loosening of Bandage. I shall give you one Instance here of a fractured Leg set in the Country by one pretending to Bone-setting. It had been bound up with Splints. About the third day after, I passing that way was desired to see him. The Fracture was of both the Focills of the left Leg. He had been in great pain from the time of the setting: it was extremely swelled from the Knee to the Toes. I saw it was occasoned by the too streight Binding

Binding. I therefore looſened the Bandage, and took off the Splints, the ends of them ſticking in the Skin, as alſo did the two Ligatures which encompaſſed the Fracture. Many Bliſters were raiſed, not only about the Fracture, but alſo about the Foot; ſome whereof were blew, and others of a dark red colour. I ſcarified them, permitted them to bleed, and fomented the Member with Stupes wrung out of hot Milk: by which I gave a tranſpiration to the Humours, then dreſſed the Gangrene-ſpots with *unguent. baſilic.* hot, and applying an anodyne Cerote over all the Leg, laid it upon a ſoft Pillow, with *Splenia* of Cloaths under it, which I faſtened about the fractured Member; and bringing the ſides of the Pillow cloſe to the Leg, it was ſupported with much eaſe: then I let the Patient blood. By this way of dreſſing, the blood circulated, the Pain accordingly diminiſhed, and ſo did the Swelling, and the gangrened Parts digeſted off, and healed by the application of *unguent. diapompholyg.* &c. After the diminution of theſe Accidents, the Leg was dreſſed up cloſer, and the fractured Bones united together, according to the method ſet down in the Treatiſe of Fractures; where alſo you will find a Gangrene ariſing from Fluxion occaſioned by the Shivers of Bones, with the manner of its Cure.

Of Gangrenes ariſing from Gun-ſhot I have ſhewed you ſufficiently in the preceding Treatiſe, and in the Obſervations of *Phlegmon* have treated of thoſe riſing from Inflammation, to which I refer you; and ſhall now give you ſome ariſing from other Cauſes, and firſt from Fluxion.

2. Obſervat. of a Gangrene on a contuſed Wound.

A Gentleman of a full Body having accidentally broken his Shin by a Fall, the Wound inflamed, and grew very painful. It not yielding to their Applications, I was fetched, and ſaw the Heat decaying, and Bliſters riſing about the Lips of the Wound, alſo a thin *Ichor* dropping from the contuſed Fleſh. I cut out the bruiſed Fleſh, ſcarified the Wound, and dabbed it with *ol. terebinth.* then fill'd it up with Præcipitate, and applied *unguent. baſil.* warm with ſome of the ſaid Oil, and a Cataplaſm over all of wheaten Bread-crums decocted in Brandy, with the addition of Saffron, Yolks of eggs, and *mel communis*; then let him blood, preſcribed a Clyſter that afternoon, and laid him to bed with an Anodyne draught. The next day I came better provided: but in taking off the Dreſſings, I ſaw the Wound dry, and felt it warm, and took notice of a ſmall Eſchar made by the former Application over it. The Lips of the Wound inclined to a Digeſtion. I fomented it, and dreſſed it up with *unguent. baſilic. cum ol. terebinth.* and repeated the uſe of the Cataplaſm: by which Dreſſings the Wound digeſted, and the Parts about recovered their natural Heat, and he was cured by Deterſives, Sarcoticks, *&c.* as a hollow Ulcer.

3. Obſervat. of a gangrened Leg.

A Woman came out of the Country to me with an Ulcer in her Leg. It had been of a long continuance, and by reaſon of her Journey it inflamed and ſwelled. When I ſaw it, the Heat was decaying, and the Tumour was ſinking; Bliſters were riſen near the Lips, and the Skin under ſome of them was of a purple, and under others of a blew colour. The Ulcer it ſelf being putrefied, I ſcarified it and the Parts about ſo far as I thought neceſſary, permitting them to bleed freely, and thruſt out the rotten Fleſh: then I fomented them with Brine, ſprinkled the Scarifications with *Merc. præcip.* and dreſt up the Ulcer with Doſſils dipt in a Solution of *unguent. Ægyptiac. in ſpir. vini*, to which I added ſome of the ſaid Præcipitate, and applied a Cataplaſm of *medull. panis tritic. pulv. ſummit. abſinth. flor. centaur. rutæ, ſcord. cham.* decocted in Brandy-wine. After I had thus dreſt her, I let her blood, and diſpoſed her to reſt with a Cordial draught. Her Body was the next day made ſoluble by Clyſters, and afterwards by lenient Purgatives.

At the next dreſſing I was provided with a Fomentation and Cataplaſm, as

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is propoſed in the method of Cure. I ſcarified again the Lips and Parts about, and deſigned as much to the Ulcer: but in taking off the Dreſſings, I felt it warm, and a kind of Eſchar made by the foreſaid Dreſſing. I therefore dreſt it with *ungnent. baſil. & ol. terebinth.* hot, and applied the Cataplaſm over all. By theſe Applications the Ulcer and Parts about were reſtored to their native Heat, and the Soar digeſted, and afterwards healed with Sarcoticks, as is uſual in ſuch like Ulcers.

4. Obſervat. of a gangrened Elbow.

A Lady aged about 63 years, of a very fat groſs Body, was ſeized with an Apoplectick fit, which afterward terminated in ſome kind of Lethargy, with loſs of Memory. During which, ſhe lying in bed, and leaning for the moſt part on her Elbow, bruiſed it, and at length the Putrefaction reaching to the Skin, it inflamed, and ſeemed to have Matter. Some Pretenders to Chirurgery, judging it a ſimple Apoſtemation, thought it not worthy the conſulting a Chirurgeon, but opened it, and put in a Tent with *baſilicon*, and left it to an Apothecary to dreſs by their direction, not forbidding the Patient to lie upon it. It being thus dreſt, the Putrefaction within increaſed, and ſpred up towards that *Axilla*, and ſhe died of that Mortification before it was diſcovered by them, ſo that the Chirurgeon came in only time enough to embalm her.

5. Obſervat. of a ſphacelated Leg.

A Gentleman of about 60 years of age, having been long diſeaſed with an Ulcer in his right Leg about the Ancle, came up to Town, and ſent for me. The Lips of the Ulcer were without Tumour or Heat: the Fleſh within the Ulcer was livid, and in ſome parts of a blackiſh colour, and diſcharged a gleety Matter. Indeed there were all the ſigns of a *Sphacelus:* yet the Patient talked of going abroad the next morning; and by his other diſcourſe ſeemed to be ſomewhat delirous. I fomented his Leg with a Stupe wrung hot out of *Spaniſh* Wine; and whilſt I provided other Dreſſings, I prevailed with him to ſend for an eminent Phyſician dwelling near his Lodging, to whom I repreſented the condition of the Ulcer, and undreſſed it in his preſence, ſcarifying the Lips and Parts within, then waſht it with *ol. terebinth.* hot, and applied *Merc. præcipitat.* &c. with a Cataplaſm *è medull. panis tritic. pulv. ſummit. abſinth.* with *ſcord.* &c. decocted in Brandy-wine. The next day a Conſultation was held of two Phyſicians, Mr. *Arris* and Mr. *Hollyer* Chirurgeons, with my ſelf. We took off the Dreſſings, and found the Ulcer ſphacelated, but not much ſpred externally. The Patient had reſted ill, and was delirous, and his Pulſe weak. We ſcarified the Lips and Ulcer, and permitted them to bleed; then fomented the Member, and dreſt the Mortification with *Merc. præcipitat.* and applied a Cataplaſm as above preſcribed. We continued our Endeavours daily: but the Venome ſpread up and down that ſide of the Foot amongſt the Bones and Tendons. The Phyſicians preſcribed Cordialls, *&c.* but his *Delirium*, &c. increaſed, and he died before it had encompaſſed any part of the Leg.

Cold extinguiſheth the natural Heat of a Part, and frequently happens to poor people travelling in Froſt and Snow. Some Inſtances I have ſeen of this Gangrene. The Recovery of them is not very difficult, if timely treated; otherwiſe they ſphacelate, as other Gangreens do. When any particular Part beginneth to decay in its natural Heat, the common Remedy is, to rub it with Snow, and afterwards to foment it with Decoctions of Turneps or of the hotter Plants, ſuch as are uſually found in every Kitchin-Garden; then to embrocate it *cum ol. lini, rutæ, aneth.* and *ol. terebinth.* mixt with them; and after to lap it up in woollen Cloaths. But if any Part be directly gangrened, we ſcarifie and dreſs it as hath been ſaid in the method of Cure. If the whole Body be over-cooled, the Cure conſiſts in the uſing Brandy, *aq. vitæ*, and other good Spirits, *theriac.* and Mithridate diſſolved in Wine, and laying the Patient by

by the Fire, but not too near, or putting him into a warm Bed, and diſpoſing him to ſweat.

6. Obſervat. of a gangrene through old age.

Of Gangrene through deficiency of Heat in Old age I ſhall only give you one Inſtance, and that in a perſon of a very great age. He is yet alive, and kept ſo by the great Kindneſs of a noble Kinſman, with whom he hath a good Chamber well furniſhed, good Firing, Diet, and Attendance. This Gentleman was ſeized the laſt Spring with a ſimple Inflammation about the Ancle without Tumour. Upon notice thereof I went the next day, and ſaw it turned black three inches in length, and about two in breadth. We fomented the Part with a Decoction of warm Plants, to which we added Brandy; then ſcarified the Eſchar, and dapped it with *ol. terebinth.* and after dreſt it with a Mixture of the ſame Oil *cum unguent. baſilic.* embrocating the Parts about with *ol. lumbricor.* &c. and applied a Plaiſter *ex theriaca.* Thus the Eſchar ſeparated, and my Kinſman *Jaq. Wiſeman* dreſſed and cured it. Before this was cicatrized, the inſide of the other Leg upon the Ancle-joynt inflamed as largely, and turned black: but by the ſame way of dreſſing a ſeparation was made of that Eſchar, and he was cured by my ſaid Kinſman according to the common method of Ulcers: but it was well-nigh the work of four months. Since that new Inflammations have begun to ariſe more than once, but hitherto have been timely remitted.

From an indiſpoſition or malign quality of the Humours within our Bodies Mortifications frequently ariſe; inſomuch that we can ſcarce make a Fontanel in ſome Bodies without running the hazzard of a Gangrene: nor indeed can they be kept from Defluxion after they are made, without the aſſiſtence of our Art. Inſtances hereof may be ſeen in ſeveral places of this Book, particularly in the Treatiſe of *Ulcers with Intemperies.*

7. Obſervat. of a gangrened Arm.

A Woman of about ſixty years of age, extreme fat, and of a Scorbutick Habit of body, ſent for a Chirurgeon to make her a Fontanel in her Arm. He cut it, and put in a Pea. She diſcharged him, and dreſſed it her ſelf. About ten or twelve days after the Fontanel growing painful, ſhe ſent for the Chirurgeon, who ſeeing it gangrened, ſent for me. The impreſſion of the Pea into the Fat before it was digeſted had corrupted that, and the Parts about were thereby infected. We ſcarified the Lips, and cut into the Fat I believe above an inch deep. We dreſt it with *ol. terebinth.* actually hot upon an armed Probe, filled up the Inciſion with Præcipitate, and applied a Cataplaſm of Mithridate. By this method of dreſſing the Heat was reſtored, and it digeſted in few days, and I left it to the Chirurgeon, who cured it.

8. Obſervat. of a gangrened Knee.

In a perſon of about forty years of age I applied a mild Cauſtick below on the inſide of the Knee, to make a Fontanel. The Eſchar being ſmall, I divided and digeſted it with little or no Pain; and the Eſchar began to ſeparate kindly: but it afterwards grew painful and gleeted, and the Ulcer corrupted very deep before the firſt Eſchar ſeparated.

This happened whileſt the Patient dreſſed it her ſelf with thoſe Dreſſings I left her Servant, ſhe not taking much heed of it, till ſhe was ſo lame that ſhe could not ſtir out of her Chamber; and then ſhe ſent for me, and to my amazement I ſaw it gangrened. I preſently cut out the looſe Eſchar, fomented it with Wine, and dabbed it *cum ol. terebinth.* hot with an armed Probe, then lightly ſcarified it in the bottome and edges, and after dabbed it again with *ol. terebinth.* filled it up with Præcipitate, and fomented it till I had made a Cataplaſm *cum medull. panis triticei, pulv. ſummitat. abſinth. & ſcord.* decocted in Wine, with an addition of Brandy, Saffron and the Yolk of an egg, which I applied over it, having firſt embrocated the Parts about it *cum ol. roſ.* Thus in three or four dreſſings I took off the Fluxion, and the ſcarified Lips digeſted; but the Ulcer it ſelf lay dry, till the Sloughs made by the

Præcipitate

Præcipitate caſt off by Digeſtion. From that time it incarned, and being contracted nearer I dreſſed it with a Pea. It was very remarkable, that whilſt the Ulcer was diſtempered ſhe was free from her other Complaints; but after it was digeſted ſhe relapſed into her former Diſtempers, and lay ſome days ill of a bilious Colick. In ſeveral others I have ſeen the like in ſpight of all my endeavours to prevent it. So alſo in making Fontanels ſometimes by Inciſion in people where there was no likelihood of preſſing on a Tendon, I have been glad to throw out the Pea, and heal them up again.

9 Obſervat. of a gangrened Toe.

But as people are ſometimes ſubject to Gangrene by making of Fontanels; ſo others we hear of that have been gangrened from paring of a Corn or Nail on their Toes. Amongſt the Obſervations of a *Phlegmon* you may ſee ſomewhat of it ariſing from a leſs cauſe.

I was once ſent for to a Perſon of Honour about ſixty years of Age. He was of a full Body, and ſeemingly healthful; but in his latter years had omitted Exerciſe, by reaſon of a Stone in his left Kidney. One morning in making himſelf ready he perceived a black Spot on the upper part of his Foot leading towards the Toe next the little one. It was no bigger than a Spangle, without Tumour, Pain or Inflammation. It appearing bigger the next morning, he ſent for his Phyſician and Chirurgeon: They cut into it, and found it inſenſible. From that time it was rationally dreſſed; but it inlarged it ſelf amongſt the Tendons, and eſpecially toward that Toe, and affected the Bones. I being then conſulted, and joyned with that Chirurgeon, we cut off that Toe, and checked the Mortification. After which with much difficulty we extinguiſhed the Gangrene in the other Parts by the various Applications preſcribed in the method of Cure, and healed the ſinuous Ulcer. During which the Phyſician purged him frequently, and preſcribed an Antiſcorbutick Decoction of *ſarſa*, *China*, *lign. guaiaci*, with the Plants proper in ſuch caſes, to diſpoſe him to ſweat; which he did ſome days. One evening whilſt he was ſweating, I being accidentally preſent, he told me he felt a numneſs in the Balls of his Toes of the other Foot. I looked upon them, and ſeeing them all black and dry, cut into them, and found them inſenſible. I ſuppoſed they might have been burnt by the Bricks: neither the Patient nor the Apothecary that ſweat him having diſcovered any thing of it before, we concluded it from the malignity of the Humour, for they were directly gangrened; and by that method I cured them ſome weeks after. But three or four days after that he was ſeized with an Apoplexy about eleven a clock on Sunday morning. He recovered out of that Fit, but died that afternoon in another.

Some other Inſtances I could give of this kind; but this may ſerve to ſhew you to what little purpoſe Amputations are in theſe caſes. But if the Body be youthful, and the Habit of body tolerable, if Gangrenes reſiſt the Applications above propoſed, and penetrate more inwardly, you may then attempt them by the actual Cautery. For, according to that Aphoriſm of *Hippocrates*, *Illi affectus qui medicamentis non ſanantur, ferro ſanantur; qui ferro non ſanantur, igne ſanantur; qui igne non curantur, hos exiſtimare oportet inſanabiles*; Thoſe Diſeaſes which will not cure with Medicaments, are cured by a Knife; and thoſe which yield not to that, are cured by Fire; and thoſe which will yield to neither, are counted incurable. Actual Cautery.

The actual Cautery doth indeed not only reſiſt Putrefaction, but corroborates the Part.

But after all our vigilancy and induſtry in contriving Remedies to reſiſt the Gangrene, if it does yet delude us, and terminate in a *Sphacelus*. There is then no more need of taking indication from antecedent cauſes, or changing

of Medicines according to the variety of the cauſes that introduced it. For whether an Gangrene ariſe from a hot *Intemperies* or cold, moiſt or dry, *Sphacelus* is always the ſame, extinction of the native Heat, and deſtruction of the Member. The Mortification creepeth on, and not only infecteth the Member, but the Spirits to the very Heart, with its corrupt Vapours mortifying the Veſſels all along the ſound Parts, and leaving the Member immo-

Extirpation. vable, without ſenſe or heat, rotten, black and cadaverous. Wherefore there is nothing more to be thought of in this caſe but timely Amputation or cutting off the Member; the Cure of this diſeaſe not conſiſting (as I ſaid) in outward Applications, but manual Operation: And what ſucceſs may be therefrom expected, is much to be doubted. *At ſatius erit*, with *Celſus*, *anceps auxilium experiri*, *quàm nullum.* It is a miſerable kind of help; yet it is the determination of all Authors, that in *Sphacelus membrum corruptum abſcindendum eſt.* In this caſe it becomes the Chirurgeon to acquaint the Friends with this kind of Remedy, and withal to make his Prognoſtick accordingly. But before we proceed in this Operation, we ſhall take notice of what ſome knowing Authours have writ hereof. For in thoſe places where Amputation cannot be made, as in the Buttock, Shoulder, Back, *&c.* *Fab. Hildanus* propoſeth the uſe of potential Cauteries applied to the mortified Part, and often renewed, till the laſt Eſchar reacheth to the live Fleſh. Yet he condemneth Arſenick, as being venomous, and producing many dangerous Symptoms. It is true, that I my ſelf have often uſed that method of Cure in *Sarcomata* with good ſucceſs: But in a Mortification there appear to me many greater inconveniences that attend it. Firſt, from the Cauſtick it ſelf, as he propoſeth it, of Salts: It will melt in the working, and is more diſpoſed to ſpread in the Skin than penetrate deep into the Fleſh. This every young Chirurgeon knows in his making of Fontanels, that he cannot apply a bit of Cauſtick ſo little, though he uſe all his Art in defending it, but that it will have ſpread much farther than he deſigned it. Then the ſeparation of ſuch Eſchars is too ſlow to effect the deſign: And in an ill Habit of body ſuch Medicaments are apt of themſelves to procure a Mortification rather than Cure. Whereas on the contrary, an actual Cautery anſwers all Intentions: It not only conſumeth the Mortification, but drieth up the venomous Humour, thereby preventing its farther progreſs; and alſo communicateth warmth to the languiſhing Parts, by virtue of which the Separation is much farthered, and by working upon the gangrened Sloughs performed more eaſily, as you may ſee in my Practice elſewhere. But where Amputation it ſelf is fecible, nay altogether neceſſary, as in the Lims, there ariſeth a new queſtion, whether it ought to be done in the ſound Part, or in the dead. *Fab. ab. Aquapend.* adviſeth the dead Part within a fingers breadth of the live, (as alſo do many others.) Then with a Cautery they burn up all the remaining Mortification. Others do perform the Operation with a hot Knife, the figure of which you may ſee in *Hildanus*. *Aquapend.* ſpeaks ſo confidently of his ſucceſs in the practice of this way, that utterly to deny the thing were to give him the Lie. I ſhall only make this Objection, that the *Sphacelus* doth ſeldome affect the Member ſo equally round, as that an Operation in the dead Part is fecible: Nay, which is worſe, when once the Mortification ſeizeth on the great Veſſels, it runneth up ſo faſt under the Skin, that before any conſiderable part of the Member is outwardly gangrened on the one ſide beyond the Knee or Elbow, the other ſide will have reached to the *Inguen* or *Axilla*. This I confeſs fruſtrates all manner of Amputating, whether in ſound or mortified Parts. Yet generally ſpeaking, the Gangrene doth not grow ſo faſt, but that if you make Amputation two fingers breadth, more or leſs, within

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the live Flesh, you may prevent it; and that far better than it is possible to be done by the other way of operating. For if you work there by actual Cautery, with a hot Knife, your Knife will stick fast in the Flesh till the moisture be wholly dried up, and then you must repeat many Knives and Cauteries, in every one of which you will meet with the same inconvenience: Yea, before you can cut through with your hot Knife, it is very probable that you will near the Bone meet with some Parts that are alive and sensible, especially when you come to the *Periosteum*; (for the Membranes do not usually corrupt at the same rate of swiftness with the Flesh;) and then all your pains and trouble will be as great or greater than if you did it in the sound Part. As to the other inconveniences, I shall refer you to *Hildanus*, who hath taken pains in confuting this Opinion.

Both these ways of Amputation seem to me much more difficult and painful than our common way; which makes me presume they proposed them to prevent the effusion of blood.

But modern Chirurgeons have answered this Objection by good Bandages and Deligation of the Vessels, and when we cut above the Knee, by clapping Cauteries to the Vessels only; which sufficiently answers that Intention. Thus have I seen in my first Sea-voiages Amputations made above Knee, and afterwards practised them with great ease and safety.

The manner of performing Amputation.

Now since not only in this Chapter of Gangrene, but frequently elsewhere in this Book, we have mentioned Amputation, I think it necessary to take this occasion of shewing the manner of performing it; the rather, because the Operation is much the same, whether it be done upon the account of Gangrene, or for other reasons. I shall therefore in general terms insert the whole Doctrine of Amputation, though briefly, not mattering whether the Examples instanced be *Sphaceli* or not, all Instances being alike instructive.

What is to be considered in heat of fight.

In heat of Fight, whether it be at Sea or Land, the Chirurgeon ought to consider at the first Dressing, what possibility there is of preserving the wounded Member; and accordingly, if there be no hopes of saving it, to make his Amputation at that instant whilst the Patient is free of Fever, *&c.* Therefore that you may the better make your judgement of the Wounds, I shall give you some few Remarques of such as require Amputation. *viz.* If a Leg or Arm be shattered by Splinter or great Shot, the loss of Substance will direct you. If the principal Muscles be torn off, and the Bone fractured in pieces, or if the Wound be with Musket-shot in the Inside of the Joynt of the Elbow, or in the Knee or Ancle, with a Fracture of the Bones of the said Joynt, nay, supposing it hath not fractured them, yet if the Bullet be so lodged that you cannot extract it, you shall then presently make Extirpation of the Part. If it be the Arm, cut it off in the place where it is so shattered, and saw off the end of the Bone smooth, your Assistent the while pulling up the musculous Skin and Flesh. If the Ancle be thus maimed, you shall then cut off the Leg within three or four fingers breadth under the Knee, in regard so long a Stump would be troublesome. But if the Leg be shattered off by the Calf, do not put your Patient to the pain of new Amputation for the shortning it a hand's breath or a little more. Save what you can of a shattered Hand. And if the Toes with part of the Foot were shot off, cut off the lacerated Parts smooth, but with care to save as much of the Foot with the Heel as you can; it being much better than a wooden Leg. But if the Arm or Leg be not so shattered, though the Wound be large on one side and hang gaping down with great Fracture of Bones, yet be not discouraged, the largeness of the Wound will make for your better pulling out those extraneous bodies, Shivers, Splinters,

Rags, or ought elſe, and for the eaſier diſcharge of Matter. Dreſs it as a Wound by a Splinter.

If the great Joint be ſo ſhot by Musket-bullet, that you think it not reaſonable to cut off the Member, be ſure you make Extraction of the Bullet, and free it of all extraneous bodies, leaving not the leaſt Shiver to prick the Nerves or Tendons: And make ſuch way preſently, that you may be able to dreſs the wounded Nerves, Tendons, *&c.* without making new Inciſion, when the Part is inflamed and unfit for it.

If after ſome days the VVound do not digeſt, but inflame and gangrene, and the Gangrene do not yield to your Applications as hath been propoſed in Gangrene; then, as in a *Sphacelus*, you are to proceed with the Extirpation of that rotten Member while the Patient is free from *Delirium*, and hath ſtrength to bear the Operation.

Seat him ſo as it may be for your conveniency. At Sea they ſit or lie, I never took much notice which; nor do I remember I had ever any body to hold them; but with the help of my Mates, and ſome one or two that belonged to the Hold, I went on with my work. At *Sterling* I made an Amputation above the Knee, and had as little help; beſides my Servants, there was only a Sea-Chirurgeon aſſiſting me. We ſtopt the Flux of blood by actual Cautery, and the Wound digeſted and cured without any ill Accident. Yet where we have convenience to proceed more formally, we always place the Patient to our moſt advantage, where he may be held firm, and in a clear light, and ſo that our Aſſiſtents may come better about us. The Member is to be ſupported by ſome one, whilſt another ſtandeth behind the Patient, and draweth up the Skin and Muſculous fleſh. Then make your Ligature two fingers breadth or thereabout in the ſound Part; ſo that if you amputate in caſe of Mortification, you may be ſure to quit your ſelf of it. This Ligature is omitted by many of our Chirurgeons here in the City, they only making a turn with a Tape, pinning it on as a mark to circumcide by: And in ſtead of the Ligature I propoſe, they make a Gripe, which Gripe is commonly made by ſome aſſiſtent who hath ſtrength to do it. Indeed this is good, where a ſhattered Member is to be cut off, to ſmooth the Stump; in which caſe there is no great fear of Bleeding. But in Amputations it ſeems to me to be very inconvenient: For I never yet ſaw any man ſo gripe, but that ſtill the Artery bled with a greater force than was allowable; yea, when Mr. *Woodall* griped, who was ſo applauded, and in truth made for the work. It being ſo, in what a huddle is the Stump then dreſt? But ſuppoſe the uneaſie poſture and the long griping tires the Griper, or that his Hand be crampt the while, what condition is the Patient then in? Whereas by this ancient way of Ligature the Veſſels are ſecured from Bleeding, the Member benummed, and the Fleſh held ſteady, ready to receive the impreſſion of your crooked Knife, (or Razour, which I have often amputated with.) This Ligature made, the Aſſiſtent ſtrengthens it, whilſt he draws up the Muſculous fleſh. In the mean time the Operatour, with a ſharp crooked Knife, by a turn with his hand cuts the Fleſh off round to the Bone; then with the back of it he ſcrapes the *Perioſteum* from the Bone; if there be two Bones, then with a dividing Knife he ſeparates the fleſhy Membrane from them. The Bones freed of the *Perioſteum*, *Guido* propoſes a linen Cloath, and *Hildanus* a kind of Purſe, to be brought over the upper divided Fleſh, to pull it upward, and make more way for the Saw. But I think that needleſs. The Fleſh divided, the Parts ſeparate enough of themſelves, beſides the Aſſiſtent's pulling up the muſculous Fleſh and Skin is ſufficient. That done, you are at liberty, whether you will cauterize the Veſſels by a Button-cautery, or by Ligature ſtop the Bleeding, or

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by Agglutination. The uſe of *Chalcanthum* I do not approve. To apply Eſcharoticks to the ends of the Nerves and Tendons newly inciſed, cauſes great pain, weakens the Part, and makes way for Gangrene; it not being likely you can ſo apply them to the Artery, but that you muſt burn the Parts about, which are, as I ſaid, the Nerves, *&c.* The way *Hildanus* propoſes, by drawing the Veſſels out by a *Forceps*, is not a work to be done in heat of Fight, nor without a clear day-light. If you attempt it on Land, his Arm would be bowed, and his Leg ſtretcht out, that the Veſſels may be the longer after Extirpation, that you may the better take hold of them. *Ambroſ. Par.* propoſes a more eaſie and ſure way of Deligation, by paſſing a Needle with a ſtrong twiſted Thread through the Skin near the great Veſſels; making your Stitch over the ſaid Veſſels by piercing through the raw Fleſh and Skin: Then make your Ligature upon a fold of a Rag. Thus you bind the Artery and Vein. Theſe ſeveral ways have been practiſed by eminent Chirurgeons for the ſtopping the blood of the Arteries in Amputation: But the late diſcovery of the Royal Stiptick hath rendred them of leſs uſe. But in heat of Fight it will be neceſſary to have your actual Cautery always ready, for that will ſecure the bleeding Arteries in a moment, and fortifie the Part againſt future Putrefaction: they requiring after Cauterization no ſuch ſtrict Bandage as that thereby you need to fear interception of the Spirits. When we cauterize the Artery, we do then touch the end of the Bone, it haſtening the Exfoliation. The next thing is the looſening the Ligature, and bringing the Lips cloſe over the Stump. Then whether you ſhould with a croſs Stitch hold them ſo, or content your ſelf by Bandage as well as you can, is by ſome controverted. They that object againſt the former ſay, it cauſes Pain and Inflammation. So doth Bandage alſo, if it be made too ſtreight. Therefore they ſhould object againſt that alſo. The moſt that I have ſeen without the croſs Stitch have the next dreſſing been broad Stumps, ſome of them with Lips turned outward by the Bandage; in the leaſt of them the whole Stump hath been bare: Whereas in thoſe in which I have made the croſs Stitch, the Lips have been found cloſe to the Bone at the next dreſſing, covering the great Veſſels, and a third part or half of the Stump hath been well digeſted, and by the ſecond dreſſing hath been near agglutinated ſo far as it lay under that Skin, and without Inflammation happily cured. Whereas the broad Stump is a certain ſign of a long Cure, and commonly the death of the Patient. The expoſing theſe inciſed Parts too much to the Air cauſes Pain, and the want of native Heat makes them gleet: Or if they do digeſt, the diſcharge of ſo great a quantity of Matter commonly exhauſts the Spirits of the Patient. If the muſculous Fleſh and Skin are well pulled up in time of Amputation, and brought over by a moderate Extenſion as far as they will eaſily admit, you will find it not painful. You ought to pierce the Skin with a Needle and ſtrong brown Thred ceared about half an inch from the edges of the Lips. Having made them croſs from ſide to ſide equally, tie them with a moderate Aſtriction, then apply a Pledgit on the cauterized Veſſels with *pulv. irid. ſucc. cepar. cum melle.* But if no Cautery was uſed, then Buttons of Tow ſpred with your Reſtrictive, and dipt in *pulv. Galeni*, muſt be applied to the Mouths of the Veſſels. Afterwards ſprinkle the Stump thick with this Powder; ℞ *bol. Armen. farin. volatil. picis naval. an.* ℥iiij. *aloes, thuris, maſtich. ſang. dracon. an* ℥j. *gypſi* ℥jſſ. *pil. lepor. corii raſpati, an.* ℥iij. *Miſc. S. A.* You may mix ſome of the ſame *cum album. ovor.* and apply it upon a thick round Stupe, which hath firſt been wet in Oxycrate and dried; and over that another Stupe ſpread with the ſame ſo broad as to come over the firſt, and up a pretty height above the Stump. This latter muſt be ſnipt deep in the edges, that it may lie ſmooth about the Member. An Ox-bladder ready

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cut and wet is to be turned over it, and a croſs Cloth next the Bladder, to hold the Dreſſing ſteady. Then with a Rowler with two heads begin upon the Stump, and rowl up to the next Joint, and ſo again about the Member, to retain your Dreſſings firm. Then faſten it ſo as that it may not be capable of falling off. But before you make this Bandage, you ought to apply your Defenſative over the Parts above the Stump. Some apply it before they begin the Amputation: But then it is apt to wrinkle, and to ſit uneaſie. In the dreſſing of the Stumps, you ought ſo to apply your Medicaments, that you may without much bungle roul up the Member. Then place it to the eaſe of the Patient, one holding his Hand ſome while upon the Stump. Your Defenſative may be of the ſame which is preſcribed in Gun-ſhot Wounds: or, ℞ *far. hord. bol. Armen. an* ℥iij. *ſang. dracon.* ℥jſſ. *flor roſ. rubr. balauſt. nuc. cupreſſ. pulv. an.* ℥vj. *acet.* ℥x. *album. ovor. num.* viij. *ol. roſ. & myrtill. an.* ℥j. *ceræ q. ſ.* Boil theſe Powders in *acetum*, then add the reſt to it, to make it of the conſiſtence of a Cerote. The third day take off the Dreſſings; and then you may cut the croſs Stitch, and ſprinkle the Wound with *pulv. Galeni*, and dreſs it with this Digeſtive: ℞ *terebinth. lot. in decoct. hord.* ℥iij. *ol. lumbr.* ℥jſſ. *gumm. elemi diſſolut. in prædict. ol.* ℥ſſ. *farin. hord. cribrat.* ℥ij. *vitell. unius ovi, croci pulv.* ℈j. *Miſc.* Apply to the Bone a Pledget of dry Lint, or preſt out of *ſpir. vini.* After the Wound is digeſted, you may deterge with *mundif. Paracelſ.* or *apii*, or this; ℞ *terebinth. Venet. lot. in ſpir. vin.* ℥iij. *pulv. rad. irid. ariſtoloch. rot. ſarcocoll. thuris, mell. roſ. an.* ℥j. Then incarn and cicatrize, as hath been ſaid in Compound Wounds.

Obſervation of the ill conſequences of wounds in the Joints.

Whilſt I was a Priſoner at *Cheſter* after the Battel of *Worceſter*, I was carried by Col. *Duckenfield*'s order to a man that out of much zeal to the *Cauſe*, purſuing our ſcattered Forces, was ſhot through the Joint of the Elbow; the Bullet entring in at the external part of the *Os humeri*, and paſſing out between the *Ulna* and *Radius*. He had been afflicted with great Pain the ſpace of ſix weeks. I found the Wound undigeſted, and full of a looſe ſoft white Fleſh, the Bones fractured, and not likely to unite, many Shivers lying included within the Joints, and incapable of being drawn out: The lower part of the Arm was œdematous to the Fingers ends as full as the Skin could well contain, and the upper part was inflamed, alſo about the *Os humeri* and *Axilla* a perfect *Phlegmon* was formed. The Patient thus tired with Pain, deſired to be cured, or have his Arm cut off. To which purpoſe he had procured the Governour's leave for my ſtaying with him. But while that *Phlegmon* was upon the upper parts, there was no hope of a proſperous Amputation, nor of Cure while thoſe Shivers of Bones lay pricking the Nervous parts within the Joint. The *Phlegmon* was too forward for Repercuſſion, and yet not likely to ſuppurate in leſs than a week's time. Wherefore I endeavoured by Emollients and ſomewhat Diſcutients to ſuccour the grieved Shoulder and Parts thereabout by hindering the increaſe of the *Phlegmon*, and to give ſome perſpiration to the Part. Then with good Fomentations I corroborated the weak and œdematous Member below: To which end I alſo raiſed his Hand nearer to his Breaſt. Alſo by Detergents and Bandage I diſpoſed the Wounds and fractured Part to a better condition, made way for diſcharge of Matter, and endeavoured to extract the Shivers of Bones; then applyed Medicaments to remove the *Caries*. After ſome days the Abſceſs ſuppurated in the upper part of the Shoulder and in the Arm-pit; and while the Matter diſcharged from thence, the Tumour diſcuſſed, and that upper Orifice cured ſoon after. But the continual Pain in the fractured Joint kept that opening in the *Axilla* from healing. The Patient growing weaker, and without hopes of Cure, I was neceſſitated to proceed to Amputation. To which purpoſe I ſent to *Cheſter* for Mr. *Murry* a know-

a knowing Chirurgeon, (ſince Mayor of that City,) to come with Inſtruments and other neceſſaries whereby I might the better do the work. He accordingly came, and we prepared Dreſſings ready; which were Stupes or Pledgits of fine ſhort Tow well workt, ſome like *Splenia*, others were round, and bigger or leſs. We wetted them all in Oxycrate, and dried them. We alſo made ſome Buttons of Tow, Compreſſes of linen Cloths dipt in Oxycrate, three or four Rowlers with one or two heads; provided Needles threaded and ceared for making the croſs Stitch, and leſſer Needles threaded for common uſe, with Filleting for Ligature, and Bladders ready cut and wet in Oxycrate; alſo a Defenſative of the above-mentioned preſcription ſpred upon a ſoft linen Cloth, to apply upon the Parts above more diſtant, and a Mixture of the aſtringent Powders with Whites of Eggs, to ſpread upon the *Splenia* and Buttons, which Buttons were alſo dipt in ſome of the ſame Powders. Then for the round Pledgits which were deſigned to be applied next to the Stump, Mr. *M.* propoſed that they might be ſpread with a Mixture of Umber and *calx viva* with Whites of Eggs, according to Doctor *Read* in his Obſervation of an Amputation he performed upon a Servant of the Lord *Gerrard*'s at *Gerrard's Bromley*, whoſe fame yet lives in that Country, and will amongſt us Chirurgeons as long as his elaborate Lectures have a being.

The *Apparatus* thus made, and the Patient ſome while before refreſht with a draught of a good Caudle, his Friends took him out of his Bed, and placed him in a Chair towards the light. One of his Servants held his Arm; another of his Friends held his other Hand. Then Mr. *M.* drew up the Skin and Muſculous fleſh of the Arm towards his Shoulder, whilſt I made a ſtrong Bandage ſome three or four fingers breadth above the affected Part. Then with a good Knife I cut off the Fleſh by a quick turn of my hand, Mr. *Murry* pulling up the Fleſh whilſt I bared the Bones. After which with a few motions of my Saw I ſeparated the Bone, the Patient not ſo much as whimpering the while. After this Mr. *M.* thruſting his hands downwards with the muſculous Fleſh and Skin which he had drawn upwards, I paſſed a ſtrong Needle and Thread through the middle of the fleſh and Skin on both ſides, within half an inch of the edges, and brought the Lips cloſe within a narrow compaſs: And having tied that Ligature faſt, and cut off the String, I paſſed the Needle again through the two contrary ſides, which I tied as cloſe; then looſened the Ligature above, and applied the little round Stupes of Tow ſpread with a quantity of *Galen*'s Powder mixt *cum album. ovi.* The long Pledgits were applied from the middle of the Stump each way upwards along the Arm, over which I put on a Bladder and a croſs Cloth, then rowled up the Stump, and made the Bandage under his other Arm and over his Neck. This Bandage prevented an Accident which hath ſince happened to a Patient here in *London*, where many of the beſt Chirurgeons were concerned. He being thus dreſt up, we put him into his Bed. The third day we took off the Dreſſings, and found the Stump well digeſted, and at leaſt two Spoonfuls of Matter diſcharged. We then dreſſed it up with a Digeſtive *ex terebinth. lot. in decoct. malvar.* the Yolk of an Egg and *ol. roſ.* ſpred on a large Stupe of Tow, on which was ſprinkled a proportion of *Galen*'s Powder: Then embrocated the Parts about with *ol. roſ.* applying *emplaſt. è bolo* over all, with moderate Bandage, and afterwards deterged with that of *Paracelſ.* and with Sarcoticks incarned the Wound. During which the Bone exfoliated, and the Stump ſoon after cicatrized. Then having procured a Paſs to come to *London*, I haſtened away.

At the Siege of *Weymouth* I was called at break of day to an *Iriſh-man* Obſervation.

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of Lieutenant-Col. *Ballard*'s Regiment, who shooting off his Musket, it brake, and tore his Hand to pieces after a strange manner. I designing to cut off his Hand, sent presently to my quarters to one of my Servants to bring both Saw and Knife, also Dressings, of which at those times we had always ready. They being brought, I took a red Ribbon from off my Case of Lancets, and bound it about his Arm some four Fingers breadth above the *Carpus*; and having cut the Flesh round off, I bared the Bones, and separated the Flesh between them. Then I sawed off the Bones, and untied my Ligature, and bringing down the musculous Flesh and Skin over the end of them, without making any cross Stitch, I drest up that Stump with Restrictives and good Bandage, and returned again to my Quarters. I had not been one hour gone, but I was sent for again to this Souldier, he being (as the Messenger said) grievously pained. I wondred at it, and hastned away: But before I came to his Hut, I heard him crying. I enquiring the cause, it was some while before he would answer me. But at last he told me, he was not able to endure that red Ribbon that I tied his Arm with. I was at first surprized to think I should leave the Ligature upon his Arm, that being a sure way to bring a Mortification upon the Part. I therefore put my hand in my Pocket, and feeling the Ribbon on the Case of Lancets, shewed it him. He seemed at first to doubt it; but after he saw it was so, he laught, and was from that time in ease. Two days after, our men were chased out of the Town and Chappel-fort. I was at the same time dressing the wounded man in the Town almost under the Chappel-fort, and hearing a woman cry Fly, fly, the Fort is taken; I turned aside a little amazed towards the Line, not knowing what had been done: but getting up the Works, I saw our people running away, and those of the Fort shooting at them. I slipt down this Work into the Ditch, and got out of the Trench; and as I began to run, hearing one call, Chirurgeon, I turned back, and seeing a man hold up a stumped Arm, I thought it was the *Irish-man* whom I had so lately dismembred: Whereupon I returned, and helpt him up. We ran together, it being within half a Musket-shot of the Enemies Fort; but he out-ran me quite. I afterwards cured him in few weeks by the method already proposed in the preceding Discourse.

CHAP.

Chap. III.

Of Fiſtulæ.

A *Fiſtula*, according to the vulgar denomination, is a Sinuous Ulcer ſuppoſed to be of two or three months continuance. But to ſpeak ſtrictly, thoſe only are *Fiſtulæ* which are at leaſt of ſo many years growth, and are accompanied with a *Callus*. Every part of the body is ſubject to theſe Ulcers; but eſpecially the Arms, Legs, Thighs and Hips. The worſt ſort of theſe, at leaſt that ever I ſaw, was from Gun-ſhot Wounds with Fracture, where there hath been loſs of Bone, or where through long continuance the *Caries* hath chambered the Bone: in which caſes the Lips of the Wound and the Wound it ſelf become callous, by keeping them long open in order to the Exfoliation of the Bone, in which caſe the Lips grow hard, and become thick and inverted. In theſe the *Sinus's* are more or fewer in number, accordingly as the Abſceſs or Wound was more or leſs ſinuous.

This *Callus* of the *Fiſtula* is haſtened by the tranſpiration and reſolution of the thin and ſubtil Humours, and the incraſſation of the more pituitous; by the congeſtion of which a long Pipe of Skin is made, which brancheth it ſelf inwards from the Orifice quite through all the Cavities of the Ulcer: from whence it hath its name. Cauſe.

The *Differences* of theſe *Fiſtulæ* are made not only from the Parts affected; as ſome are in Fleſhy parts, others in Tendonous, or in the Bones or Joynts, or in the Breaſt, Belly, *&c.* but alſo from the figure, magnitude, and number of the *Sinus's*; as ſometimes there is only one, then again two or three, crooked or winding till they enter the Bones themſelves. Differences.

They are known by the view, and by the touching of the Parts, or by ſearching with a Probe, and from the diſcharge of a thin ſerous fœtid Matter, alſo from the arched Hollowneſs they have. If by your ſearching, the Parts are pained, or if blood follows your Probe, the *Fiſtula* is not confirmed: but if neither happen, then it is. Signs.

All *Fiſtula's* are hard to cure, and thoſe of long continuance with great diſcharge of depraved Humours from the *Viſcera* are worſt. Thoſe amongſt the Bones and great Joynts are very difficult to cure, by reaſon of the Senſibility of the Parts, which for the moſt part admits neither of Dilatation nor Inciſion. Thoſe which are in ſuch places where you may ſafely lay them open, or remove the *Callus*, are more eaſie of Cure. Prognoſtick.

The way of *Cure* is performed either by manual Operation, or by Medicaments. But before you proceed in either, you are to conſider that theſe *Fiſtula's* are ſubject to Pain and Defluxion: wherefore you are in the firſt place to proceed by Evacuation of thoſe Humours which may diſturb you in your work; and that is done by Purging and Bleeding, good Traumatick Decoctions, with obſervation of Diet, *&c.* as is ſaid in the univerſal Regiment of Ulcers. Cure.

To proceed in the Cure by manual Operation, you are to conſider the

part affected, whether the *Callus* be only in the Lips, or in the *baſis* of the *Fiſtula*, or throughout the whole length of the *Sinus*. And this is diſcovered, as I have ſaid before, by the Probe, *&c.* If there be neither Pain nor Matter, and the *Fiſtula* be tending only down directly to the Bone, it will then be beſt to let it alone, accounting it as an imperfect *Cicatrix*, and that it will in time grow more cloſe: but if it be otherwiſe, you muſt then remove the *Callus* in order to the Cure.

If the *Sinus* be in a place where it may conveniently be laid open without Dilatation, divide it with Knife or Sciſſors the whole length. If after laying it open the *Sinus* be not throughout callous, remove that which is, and heal it according to the common method of Ulcers. But if the Oriſice of the *Fiſtula* be ſo ſtreight and narrow, that you cannot lay it open, you muſt then dilate it with Tents of Sponge, Gentian, *Ariſtolochia*, Eldern-pith, *&c.* until the *Sinus* be large enough for your purpoſe. And to further this work, it may be proper that you outwardly apply ſuch Medicaments as may by their emollient and digeſtive quality reſolve and diſſipate the Matter impacted in the Parts about it: and theſe are *rad. althææ, lilior. enulæ campan. ſigill. Solomon. cucumer. agreſt. ſem. lini, fœnugræc. medull. oſſium, axung. porcin. axung. humán. anſeris, gallin. unguent. dialthææ, gum. galban. Ammoniac.* &c. Of theſe you may make Fomentations, Cataplaſms, or Cerots. You have alſo to this purpoſe *empl. de ranis cum & ſine Mercurio, empl. de mucilag. diachyl. cum gum.* The *Fiſtula* thus diſpoſed for laying open, you muſt conſider whether you may not remove the *Callus* by Cathæreticks: to which purpoſe *Celſus* propoſeth *lachr. papaver. Cadmia, atramentum ſutorium, ærugo, ſandarach. alum.* We commonly uſe *lap. cauſtic. Vigon. troch. de minio, arſenicum, ol. chalchanth.* Or thus: ℞ *ceræ, reſinæ, an.* ℥j. *ſublimat.* ℈ij. or more or leſs; mix this upon the fire, and dip a Sponge in it, but not too hot, leſt you burn your Sponge: then preſs it out, and cut it into ſuch a form as may ſerve your purpoſe. *Guido* commends *aq. fortis* as moſt excellent for deſtroying the *Callus* of all theſe *Fiſtula's*. But if you had rather have an Injection, you may make this or ſuch like: ℞ *unguent. Ægyptiac.* ℥ſ. *ſublimat.* ʒſſ. *arſenic.* ℈j. *lixiv. ſapon.* ℥j. *aq. roſ.* ℥ij. *aq. plantag.* ℥iiij. boil this *ad tertiæ partis conſumpt.* caſt in a little of it with a Syringe three days together, ſhutting the Orifice up with Wax or ſome Plaiſter: ſo ſhall you conſume all the *Callus*. But you muſt conſider well the ſituation of the *Fiſtula*, leſt by its too far penetrating it hurt the Bone or Parts underneath. After the application of theſe ſtronger Medicaments, you muſt by Lenients mitigate the Pain, and defend the Part from Defluxions, which for the moſt part attend ſuch Eſcharoticks. Theſe are, Decoctions of *fol. malvæ, biſmalvæ, violar. verbaſc. hyoſcyam. ſem. cydonior. hord.* or *ol. vitell. ovor. butyrum, axung. porcin. unguent. baſilic. cum ol. lilior. dialthæa*, &c. And apply over them Refrigerants; as *empl. è bolo, oxelæum, diapalm. cum ſuccis*; or ſome of the Defenſatives mentioned in this Treatiſe. When the Inflammation is repelled, and the Sloughs caſt off, you may deterge with this: ℞ *terebinth. in aq. vitæ lot.* ℥iij. *ſucc. apii, cynogloſſ. an.* ʒvj. *mell. roſ.* ℥jſſ. *decoq. ad ſucc. conſumpt. deinde adde rad. ariſtoloch. rot. pulv.* ℥ij. *far. lupinor.* ℥ſ. you may add to it *pulv. ireos, myrrh. ſarcocoll. thuris*, and thereby incarn: then cicatrize with *unguent. deſiccat. rubr.* &c. If the Bone be carious, you ought to conſider how far the *Caries* hath entred into it, and proceed in the removal of it either by actual Cautery, or Rugines, ſcraping the Rottenneſs off: then by Catagmaticks haſten the Exfoliation of the Bone, and proceed in the reſt of the Cure with Sarcoticks and Epuloticks. But if the *Fiſtula* be near or over ſome noble Part, or if there be Nerve, Tendon or Artery near,

or

or if it be deep in the great Bones or in the Joynts, where you may not ſafely proceed by actual or potential Cautery, and it will not yield to milder Medicaments; you ſhall do better to palliate it by ſome Waters and Unguents, which may diſpoſe the Part to quiet, purging the Patient ſometimes, and obſerving the univerſal Regiment in Diet, *&c.*

Obſervation of a *Fiſtula* with *Caries* in the *Os tibiæ*.

AN Officer of the *King*'s Army laboured long of a *Fiſtula*, occaſioned by a Gun-ſhot Wound in the upper part of the *Os tibiæ* near the Knee, where it had formerly been ſhattered, many fragments of Bones caſting out at times. He had been ſometime my Patient in *France*; but here I finiſht what I there attempted, and had not time to do. After general Evacuation, I applied a Cauſtick the whole length of the *Sinus*, whereby I took off that *Callus*, gave vent to the diſcharge of that fœtid *Ichor* made in the Ulcer, and took out ſeveral pieces of the rotten Bone which were ſhut in there. That done I ſcraped away the remaining Rottenneſs, and dreſt the Bone with Catagmatick powders, *&c.* by which means after ſome time a *Callus* thruſt forth, and united with the neighbouring Fleſh, which incarned with the Lips, and was afterwards cicatrized by the common Epuloticks.

It often happeneth, that in the time of the Exfoliation of carious Bones, as in Gun-ſhot Wounds and old Ulcers, while we are attending Exfoliation, the Lips grow callous, ſo that the *Cicatrix* is deep, and the Lips lie at ſome diſtance. In which caſe heretofore I have taken much pains to ſmooth them: but have ſince by experience found, that in time thoſe Lips ſink of themſelves, and as the *Callus* riſeth up to them the *Cicatrix* becometh firm and ſeemly, without giving the Patient that trouble of removing them by Cautery or Knife.

A TREATISE OF FRACTURES AND LUXATIONS.

LUXATIONS.

AND

FRACTURES

OF

THE ARM.

OF FRACTURES.

The Seventh Book.

CHAP. I.

Of Fractures.

A Bone is a ſimilar Part of the Body, and the hardeſt and drieſt of all. The general Uſe of which is, *Stabilimentum ac fundamentum reliquis omnibus Partibus largiri*, to be a firm Prop and Foundation, upon the ſtrength whereof all the reſt of the Parts are built. The whole *Sceleton* conſidered joyntly, may be looked upon as performing that office to the Little world, that *Atlas* hath been fabulouſly reported to do to the Great one: it bears the whole bulk of it, and ſuſtains it in all its motions; none of which could be performed, if either the Bones were not, or not ſo articulated and joynted as upon defection they appear to be. *Nam ſi oſſa abeſſent, non flecteremus manus, non nervos & fibras.* Nay, if the leaſt Bone be but a little maimed, the uſe of the Part is hindred. But they are not only *Fulcimenta*, as *Galen* ſays, *De Uſu partium, ſed etiam Defenſio*, but alſo a Defence. The *Cranium, veluti Galea*, as a Helmet defends the Brain from external injuries. So *Pectus Oſſibus clauditur*; the Heart, Lungs, and great Veſſells of the *Thorax*, are guarded by a Wall of Ribs. The *Spina* is a Bulwark to the Marrow included in it: and ſuch a defence is the *Os pubis* and the *Os coxæ* and *Ileon* to the Womb and Bladder. Others otherwiſe ſerve the uſes of Nature. As the three little Bones *in meatu Auditorio*, by firming the *Tympanum*, are a great help to the Hearing: the *Os hyoïdes* aſſiſteth the ſwallowing, by managing the Root of the tongue and the *Epiglottis*: the *Rotula* ſerves the motions of the Knee: and the Teeth prepare the Meat by Maſtication. Not a Bone but hath its particular end ſet out. There was a reaſon of the Temper, of the Magnitude, of the Number, of the Subſtance, of the Situation, of the Connexion of them; the wiſe *Creatour* as much ſhunning ſuperfluity as deficiency. Indeed, the whole Fabrick is ſo full of Excellency, that it would take up much time to expreſs it. But that is not my buſineſs. The Subject I have undertaken to treat of is their Misfortune: and that is twofold; to be

The Office and Uſe of Bones.

be fractured, and diſlocated. That of Fractures I have propoſed for the firſt part of my preſent Diſcourſe; and that only in general, it being ſufficient for my deſign.

Definitions of Fractures. To proceed methodically, I ſhall begin with their *Definition* of a Fracture, who, according to *Galen de Methodo medendi*, make it to be *Unitionis ſive continuitatis ſolutio quæcunque in oſſe.* But this being too general, and taking in all Cariosity and Ulcers of the Bones, which hardly belong to this Head of Chirurgery, the Moderns have more cloſely defined it to be, *Oſſis diviſio ſeu ruptura à cauſa violenter irruente.* But this likewiſe ſeems to me to be liable to many Exceptioos. I ſhall name only this, *viz.* That a Cut made into a Bone by a Sword or a ſharp Inſtrument ſeems to be rather a Wound, than a Fracture. And for this reaſon *Guido de Cauliaco* makes it to be *continuitatis ſolutio in oſſe non à re qualibet facta, ſed ab ea quæ contundit.* But I muſt ſtill beg pardon, if I be not yet ſatisfied with this Deſcription, becauſe it leaves out all ſuch Fractures as are made by any accidental bowing of a Bone, either in a Wrench, or any other caſe where, without any Blow or Contuſion of Parts, the Bone ſnaps in ſunder, and then wounds the neighbouring Muſcles, even to the thruſting of it ſelf very often quite through the Skin. Theſe are (caſes of Battel excepted) the moſt frequent of all Fractures; yet not without ſome violence to be reduced to any of theſe latter Definitions. I

The Authour's Definition of Fractures. ſhall therefore chuſe to define a Fracture in the following words; It is a Solution of continuity in a Bone, ſuddenly made, either by Contuſion or Flexure. By Contuſion I mean, either a Blow by a blunt Inſtrument, or a Preſſure by a great Weight; either of which uſually bruiſeth the Fleſh about the Bone, as well as the Bone it ſelf. In Contrafiſſures indeed the Bruiſe is not immediately upon the Fracture, but in the place where the Blow is given. In Flexure there is ſeldome any Bruiſe, but what is made by the edges of the Bone it ſelf after it is ſnapped in ſunder. All other Fractures are reducible to theſe.

Amongſt the *Greeks* it was commonly known by the name of *Catagma*, I purpoſe not to trouble you with the nice Diſtinctions in Fractures, nor yet with their various Names. *Galen* in his Book *de Method. medendi* complains thus in his time: *Non deſunt ex Medicis junioribus, qui ambitioſe omnes Fracturarum differentias propriis nominibus interpretantur*; There want not (ſaith he) young Phyſicians who affect to give proper names to all the ſeveral kinds of Fractures: *At non Hippocrates hujus fuit ſententiæ*; nor ſhall I

Differences. ſpend my time ſo, but, according to *Galen*, do take the *Difference* in Fractures to ariſe, 1. *à figura*, 2. *à magnitudine*, 3. *ab oſſium fractorum varietate.* Firſt, from their Figure: and that is either right, *quæ fit per longitudinem*; or tranſverſe, *per latitudinem*; or oblique, which is as it were compounded out of the two former. Secondly, *à magnitudine*, according as the Fracture is greater, or leſs. The third Difference is, *ab oſſibus ipſis*, that is, from the Bones themſelves that are broken, whether it be the Arm, Leg, Ribs, *&c.*

Cauſes. *Cauſes* of Fractures internal there are none, unleſs they proceed *ab humoribus corporis erodentibus*; and of that ſort you may read many in *Schenckius*, *Fabr. Hildanus*, and others. I my ſelf have ſeen ſome, and lately. But theſe, being from Eroſion, are rather to be called Ulcers with *Caries*, and therefore more fit to be diſcourſt of among Ulcers of that kind, to which I refer you.

Of Cauſes external there are many; as the too violent Aſſaults or Stroaks of all external things, which may bruiſe, break, ſhatter, or bend. In this number of Cauſes may alſo be reckoned Falls from on high, *&c.*

Signs. The *Signs* of a Fracture without a Wound are for the moſt part very evi-

dent.

dent. The first and most certain is, when in our handling the Part we feel the pieces of Bones severed asunder, and hear them crackle. Secondly, the Impotency of the Member. Thirdly, vehement Pain. Fourthly, a Distortion of the Part. It may also be discovered by comparing the one Member with the other; the fractured being the shorter. But if there be a Wound joined to the Fracture, then if the Bones thrust themselves not forth, yet you may easily know the Member to be fractured, if you search with your finger or Probe. There is also a Curvedness, which may be reduced to a Fracture. I have seen it in Children often, as in *D. C*'s little Daughter in the *Old Baily*, and Mr. *N*'s Son in *Black-friers*, and others. It is as it were when you break a green Stick; it breaks, but separates not: So is cured by a due Extension, with little trouble to the Chirurgeon, or Pain to the Patient after the Extension is made.

If the Fracture be *secundum longitudinem*, it will appear first by the unnatural thickness of the Member, then by the Pain and Inequality of the Part.

As to the *Prognostick* or Presage, a Fracture of the Bones cannot be without danger: For of necessity the Solution of continuity must be great. If a Wound be made in a Fleshy part, it is then proportionable to the Weapon that made it, *& non ultra*: But if the Bone be broken, *propter rigiditatem & continuitatem non potest frangi, nisi totum frangatur.* The Fracture is more dangerous in a great Bone than in a small; and the greater, if both the Bones be broken, as the two Focills in the Leg, or if it be the Arm, where the *Radius* and *Ulna* are: yet if it happen in the middle of the Bones, it is the less dangerous. Those in or near the Joynt are more painful, and difficultly cured: And if any Shivers press upon the Nervous parts, ill Accidents commonly follow; but of all the Fractures that with a Wound is most dangerous. Prognosticks.

As to the time of *Cure*, the lesser Bones are perfected in fourteen, eighteen, or twenty five days, the bigger in forty or fifty, according to *Guido*. Yet let me advise you not to be too hasty in taking the Patients out of their Beds; for in some Bodies the generation of *Callus* is very slow, and a new Distortion may happen, and ill Accidents follow. I have been called into Consultation upon such an Accident; the Patient did recover, but by lying very long within doors contracted such an ill Habit of body, as was not got off in a long while after. Cure.

In the Cure of Fractures Unition is required: But that cannot be made, unless Pain and Inflammation be prevented. For a Fracture of the Bones is not made without an internal wounding of the *Periosteum* and Parts next to it, whence grievous Pain arises, which stirs up Defluxion, and is attended often with great Inflammation; and from the weakness of the Member many Excrements are made and received, which it is neither capable to assimilate, nor yet expel. And the mischief is so much the greater, by how much the Bones lie deeper under the Muscles, where they cannot be set, by reason of the great quantity of Flesh interposing between them and the hand of the Artist. The Intention pursued in this case is the Union of Bones, as I have already said; which is not performed by the first Intention, unless it be in little Children, but by the second, *viz.* an intervening of *Callus*.

The Method I thereto propose is, first, to joyn the fractured parts together; secondly, to keep them so joyned: Thirdly, to preserve the Tone of the Part; fourthly, to generate *Callus*; fifthly, to correct Accidents. Intentions of Cure.

That the Parts may be rightly joyned together, there is need of Extension, and Coaptation. For in Fractures, especially transverse ones, the Bones 1. Intention.

are commonly distorted, the rectitude of the Member lost, some Parts are prominent, and others hollow, the fractured Bones lying one upon another; and so the Member is made short: *& quia musculi perpetuò membra trahunt versus suum principium*, therefore Extension is necessary, that the Parts which are indirect may be brought right, and the Parts that stick out may be reduced to their Cavities, And although sometimes the Member seemeth not to be short, as if it consists of two Bones, and one broken, or that the fractured bones do not lie one over another; nevertheless you ought to make due Extension in all Fractures, because the Bones never lie exactly equal, and most frequently they ride one over another. The want of which Extension is one reason why the fractured Thigh-bones happen to be so often shorter than they should be, as *Celsus* hath it in these words; *Si femur perfractum fuerit, breve erit*; his reason is, *quia nunquam in antiquum statum revertitur.* And I find in *Galen*, that *Hippocrates* saies the same of the Leg and Arm; and withal tells us, it is so, *nisi ante confirmationem extensio debita adhibeatur, & commodâ deligatione ossium coaptatio servetur.* By which you may observe, the fault is want of good Extension, and keeping the Part in its right seat: For unless that be done, you shall hazzard the starting again of the Bones, and thereby their fractured ends may happen to be broken off by mutual Attrition in the act of joyning together: and if those pieces do chance to fall in between the main Bones, they will then hinder their uniting: And if those Shivers slide outwardly towards the Membranes, they will cause extreme Pain. This inconvenience is therefore to be shunned by the help of Extension. But again in Extension there must be observed a mean, as *Vigo* notes: *Ad magnam quidem Extensionem futurus Spasmus valde suspectus est.* Yea sometimes the very Muscles are torn asunder, as *Galen* tells us: And *Albucasius* cries out, *Cave Extensionem vehementem & Compressionem fortem, sicut faciunt multi stolidorum: Multoties enim faciunt Apostema calidum & contractionem in membro.* By which it seems in his time there were such people, who thereby drew sad Accidents, as Convulsions and Inflammations, upon their Patients. But if the Extension be less than it should, then, as I said before, the ends of the Bones rub one against another, and are broken, or not seated in their proper place. Therefore the bigger Bones having large Muscles, which draw the Member forcibly to their Original, do require the stronger Extension; and such are those of the Thighs, Legs and Arms. And if both the Focils of the Arm be broken, the *Radius* requires the more Extension, because it hath no Muscles to draw it upwards, its motion being only *secundum pronum & supinum.* In Extension it behoves us to observe *debitam figurationem*, that the Member be extended *in ea figura quæ minimum facit dolorem*, saith *Galen*: which is done, if the Fibres of the Muscles be stretcht according to their rectitude. Children, and such as are of a soft Habit of body, do best suffer Extension: Elderly and dry Bodies the contrary.

Extension.

In the next place is to be considered the most reasonable time wherein to reduce the Fractures. And herein we all agree, the sooner the better, and that to avoid Inflammation; and according to *Celsus*, *Si in primis diebus non restauratur, inflammatio oritur*, &c. If at the first or second day the Fracture be not reduced it is in danger of Inflammation and Mortification: For indeed after the second day, it is supposed the Fracture is accompanied with great Defluxion, and so yields not to Extension without hazzard of drawing such ill Accidents upon it self.

Therefore *Fallopius* in his Exposition upon *Hippocrates De Capitis vulneribus*, and by his authority, tells us what we shall do in such a case. *Si os*

non

non fuerit in ſuo loco, ſaies he, *ideo ad ſeptimam, qui eſt primus terminus Inflammationis, vel uſque ad nonam, qui eſt ſecundus, debemus bene advertere: & oportet impedire inflammationem.* If the Bone was not reſtored before the time of Inflammation, then we ought to attend till the ſeventh day, which is the firſt period of Inflammation, or until the ninth day, which is the ſecond period: And all this time we ought to reſtrain the Defluxion, *vel per lenitionem doloris, vel expreſſionem & deligationem loci. Lenimus autem medicamentis oleoſis, quæ habent vim refrigerandi, vel per deligationem pluribus faſciis*; either by lenient Medicines, or by Deligation. We lenifie with ſoft cooling Oils: We make our Deligation or Bandage by many turns of the Rowlers. Theſe are to be done until the ſeventh or ninth day. Inflammation abating gives you opportunity for reducing the Fracture. The Inſtruments for Extenſion are threefold. Firſt, the Chirurgeon's Hand, for gentle Extenſion: And let him place his Hand near the Fracture; otherwiſe he ſhall hurt the ſound Part by too much Compreſſion, and not avail himſelf much in his Extenſion. Secondly for the middle Extenſion there are *Funes* and *Habenæ*, a ſort of Bandage fit to pluck at in order to Extenſion. Thirdly, there are *Organa* and *Machinamenta*, Engines uſed often by us, but invented by the Ancients: And they are for the moſt ſtrong Extenſion. But before you make your Extenſion, conſider whether the Member be not fractured in more places than one. An old Gentleman came out of the Country, and by a Fall going down *Ludgate-hill* brake his right Arm a little above the Wriſt tranſverſe; and near the bending of the Arm was a ſecond Fracture oblique. This double Fracture hath happened to others in the Leg. It requires your circumſpection, leſt the one eſcape our ſight, and the Member be left deformed, and weakned in its action.

Inſtruments of extenſion.

The Extenſion made, the Extenders are to be looſened gently, and the Operatour muſt with his hand endeavour as gently to preſs down the ends of the Bones, and joyn them ſmooth and even together. And if there be any little Shiver that will not be placed even with its fellows, cut upon it, and take it out. You ſhall know the perfect Coaptation of Parts by theſe Signs. Firſt, if the fractured Member anſwer to the ſound; ſecondly, if by your handling of it you feel no Inequality; and thirdly, if Pain be abated.

Coaptation.

Signs of good Coaptation.

The ſecond Intention in curing of Fractures is, that the Parts brought together may ſo be preſerved: And that is performed by Bandage, which ought to be ſo made, as not only to keep the Parts ſo joined together, but to defend them from Inflammation. And to this purpoſe I commend to you that of *Hippocrates* from my own practice. It conſiſts of three Rowlers made of linen Cloath, not too courſe, leſt thereby it ſhould offend the fractured Member; nor yet too ſoft and fine, leſt it break.

2 Intention.

With the firſt Rowler you are to begin upon the Fracture, and take three Turns there. Then rowl upward to the ſound part, and ſo a little higher, and there end this Rowler. It will keep the Fracture a little ſteady, until the other Bandage be made, and reſtrain the influx of Humours which might cauſe Inflammation.

1. Rowler.

The ſecond Rowler ought to be as long again as the firſt, and muſt be rowled contrary to the firſt; as for inſtance, if the firſt was made to the right hand, this muſt be turned to the left: So that if the Muſcles by the firſt Bandage were wreathed too much on one ſide, they now may be reſtored again to the other. This ſecond Rowler muſt begin upon the Fracture, and after a Turn or two there, muſt be carried downwards, that ſo you may preſs the influx of Humours from the fractured part. And ſo having made three or four Turns downwards upon the ſound part, you may rowl upwards

2. Rowler.

again by the Fracture, and making a Circumvolution upon the Fracture it ſelf, paſs upwards, until you come to the end of the firſt Rowler. And there *Hippocrates* terminates this ſecond Bandage, becauſe there is fear of the deſcent of Humours *à parte ſuperiori*: And theſe two Bandages do more defend the Part from Inflammation, than ſtrengthen the Fracture. But they being made, *Hippocrates* puts over them Compreſſes of linen Cloth three or four times doubled, of ſuch length as to reach over the Fracture; but ſo narrow, as that five or ſix might be placed round about the Fracture, the diſtance of a finger one from another. Theſe are to be ſpred with a little Cerote, only to make them ſtick. They are called *Plagulæ* and *Splenia* from their figure, and do ſupply the defect of agglutinative Medicaments, and leſſen the Pain, by hindering the Compreſſion of the Bandage.

Splenia.

3. Rowler. The third Rowler of *Hippocrates* faſtens the ſaid Compreſſes; and its firſt Turn is made upon the Fracture, the one head being carried upwards, and the other downwards. And you are to take notice, that the Bandages are to be drawn more ſtreight upon the fractured Parts than elſewhere, that the ſaid Parts being more weak, may be kept from Defluxions.

Celſus's way of Rowling. *Celſus* in his eighth Book, and tenth Chapter, propoſes another way of Bandage. Firſt, he dipt a Cloth in Red wine and Oil, and applied it over and about the Fracture, and over that he brought ſix Rowlers, his two firſt being thoſe of *Hippocrates*, and ſo he rowled them: then he uſed a broad double linen Cloth, ſpred with Cerote, to keep them cloſe down. And his reaſon is, becauſe the fractured Bone hath always a propenſity that way whither it tended when fractured; therefore, ſaith he, you are always to put a Compreſs of linen Cloth, dipt in Wine and Oil, *ei parti quæ contraria eſt parti in quam membrum inclinat.* And over this he brings the four remaining Rowlers; ſo as the following Rowler be rowled contrary to the former, and the third end *in inferiori parte*, in the lower part, *reliquæ omnes in ſuperiori terminum habeant*, all the reſt end above.

Theſe are the Bandages of *Hippocrates* and *Celſus*, men of the greateſt Authority in Chirurgery, and are followed almoſt by all that have writ ſince, and are of excellent uſe in Fractures in and near the Joints, where there is fear of Inflammation. But then in your Binding you muſt obſerve ſuch a mean as conſiſts with the eaſe of the Member bound. A ſmall and lax Tumour appearing at the extremity of the Member a day after, is a ſign of good Bandage; But if there appear no Tumour, or if the Swelling be great and hard, then the Bandage is naught; the firſt ſhewing the Bandage not to be ſtreight enough, and the laſt too ſtreight. Therefore you ſhould often viſit your Patient, to inform your ſelf how the Bandage is.

Signs of good Bandage.

When to looſen Bandage. But if no Accident happen, you ſhall not unbind the Fracture until the ſeventh day: And then, if all be well, the Bandage will begin to ſlacken of it ſelf; and if it be not well, you may then ſee your errour, and timely help it. And that is one reaſon, why Fractures ſhould be opened about that time. Another may be, for that often in Fractures there is an intolerable Itching, through the detention of Humours, which are made ſharp by Deligation, (Perſpiration being thereby hindred,) and that is wont to terminate in a moſt painful Excoriation and inflamed Redneſs. In which caſe you are to bath the affected Part with warm Water, that the Matter may be evaporated: And then the Member is to be bound up again. But here you are to put *Ferulæ* or Splints in ſtead of the *Splenia* or Compreſſes. Whereas in Fractures with great Contuſion, or in and near the Joints, I have continued the uſe of Compreſſes wet in Whites of Eggs during the whole Cure with good

good ſucceſs. And lately a Youth about ten years of age, labouring under a carious Ulcer in his Foot, the laſt great Froſt brake his Thigh-bone according to the length of the Member. This Fracture was covered with *empl. è bolo* and *Splenia* moiſtened *in album. ovor.* with Bandage, *&c.* as is propoſed in this Treatiſe; by which the fractured Bones were kept even and cloſe together with much eaſe to the Child, and agglutinated firmly by the *Callus* intervening. Mr. *Towel*, ſometimes a Servant of mine, ſet his Thigh-bone for me, I being at that preſent otherwiſe imployed. Obſervation

But all the Ancients after the ſeventh day did uſe Splints; and ſo have I where they might ſafely be uſed: For they not only keep the Member ſteady, but ſtraight. And of theſe ſome are made of Tin, others of Scabbard, Paſtboard, and of Wood, ſowed up in linen Cloaths. Thoſe of Tin do very well, by reaſon of their lightneſs. Thoſe of Scabbards are apt to bow, and ſo thoſe of the thickeſt Paſtboard, eſpecially if they chance to be wet. And thoſe of Wood are heavy, and apt to inflame the Member. Yet through the Artiſt's care they may be all uſed with good ſucceſs, yea from the firſt day of the Fracture. As in the caſe of a Reverend Divine, who brake both the Focils of his left Leg within a few fingers breadth of the Ancle. This perſon laboured under an *Aſthma*, which grievouſly ſhook the fractured Member; wherefore I was neceſſitated to put on *Ferulæ* the very firſt dreſſing, which I continued the uſe of during the whole time of his Cure. He lately told me, that he never felt the leaſt pain in that Leg ſince I took off the laſt Plaiſter, which is more than ten years ſince. But *Hippocrates* uſed them not until the ſeventh day. For before that day there was more need of hindring the Inflammation, than of ſtrengthening the Fracture; *poſt ſeptimam contra*, but afterward the contrary is required.

The third Intention in curing of Fractures is, in preſerving the Tone of the Part. *Natura enim os unire nequit, niſi pars ſit ſana*; Nature cannot knit the Bones while the Parts are under a Diſtemper: And that cannot preſently be removed. For though fractured Bones be very well ſet, yet there will remain ſome *Cavernulæ*, which will be apt to fill with *Sanies*, which the Part through its weakneſs can neither well aſſimilate nor expel, and ſo is like to be burthened with excrementitious Humours. Therefore Phlebotomy may be here of ſpecial uſe, and the keeping of the Belly ſoluble by Clyſters, or otherwiſe, and a ſlender Diet muſt be preſcribed. This is the work of the Phyſicians. But they not being always at hand, I thought fit to mention it, and ſo to proceed to our own work, in keeping up the Tone of the Part. And hereto we have need of ſuch Medicines *quæ materiam influxam deſiccant, & inflammationem repellunt*, which dry up Seroſities, and repel Inflammation. And theſe in a word are *Aſtringentia*, of which we have choice. *Hippocrates* uſed Cerote, then Red wine: *Celſus*, as you have heard, uſed Oil of Myrtils and Roſes, Red wine, and Whites of Eggs together: Others again uſed Whites of Eggs alone; and others added Oil of Myrtil, *balauſt. roſ. rubr. ſang dracon. bol. Armen.* and with a little Wine made it up to the conſiſtence of a Liniment, and applied it upon Cloaths over the Fracture. By the uſe of this latter Medicament I cured a man whoſe Arm was ſore bruiſed, and fractured in many pieces, by the fall of a piece of Cannon, which brake looſe in a Storm, while we were preparing to lay aboard our enemy. Over this Reſtrictive I applied *Splenia* of double ſoft Linen with Bandage, as in Compound Fractures, and happily Cured him. If the Inflammation be not great, I then take *empl. diapalmæ*, and ſome of the forementioned Powders, with a little Oil of Myrtil and Vinegar, made up to the conſiſtence of an Emplaſter, which I ſpread upon Cloth pretty thick, and apply over the Fracture. 3. Intention.

Fracture. It not only reſtrains the Defluxion, but ſtrengthens the Fracture. The Medicaments propoſed are all very good, and excellently preſerve the Tone of the Part, if they be proportioned according to the greatneſs of the Malady.

Poſition of the Member.

There is yet farther requiſite to the performance of this Intention, a right Poſition of the Member: And that, according to *Galen*, *debet eſſe mollis*; the hurt Part ought to lie ſoft: For that hard lying preſſes upon the bruiſed Bones and Fleſh, and cauſes Pain and Inflammation. *Debet eſſe æqualis, nè diſtorqueat*; It muſt lie ſmooth or equal, becauſe an uneven placing diſtorts or draws awry the Part. *Surſum verſus, nè humores deſcendant*; It ſhould lie ſomewhat high, leſt a painful Defluxion fall upon it. *Oportet congruam membri figurationem conſiderare:* It behoves, ſaith *Hildanus*, to conſider the convenient figure of the Member, that the Muſcles be kept in their right Site, which is moſt free from Pain. *Hæc autem eſt figura media*; which if it be not obſerved, *exiguo poſt tempore membrum dolere ſolet.* What thoſe Pains are, you may poſſibly gueſs, but no tongue can expreſs. Therefore you ought to handle the Member very tenderly; and if the Fracture be made *in Cubito*, place it in a Caſe made of Paſtboard, with a ſoft Pillow under it, and bring it up to the Breaſt with a fine Towel, or the like. But if it be the Leg that is fractured, we then place it in a Bed, or in a Cradle, or upon a Pillow quilted in the midſt with Junks to ſupport it; having a ſpecial care that the Hollow of the Ham and Heel be filled up, leſt the weight of the Foot hurt the Heel, from whence grievous Pain doth enſue, and ſad Accidents may follow, as at large you may read in *Fabr. Hildanus.*

4. Intention.

The fourth Intention is, *Callum generare*, to make *Callus*; which is to be endeavoured after the fear of Inflammation is over, *quia natura partis læſa non poteſt Callum generare*; and that ceaſeth *circa diem ſeptimam*, about the ſeventh day, ſooner or later. And if after that time the Fracture be to be ſet, *poſſunt diverſa & mala accidentia generari*, ſaith *Vigo.* Yet after the ſeventeenth day of the Fracture I have ſet the Thigh-bone, and cured the Patient, without any ill Accidents: He is yet living to teſtifie it.

How the *Callus* is made, you may read at large in *Fallopius*, in his Expoſition of *Hippocrates.* And though it be not Bone, it is ſo hard, ſaith he, that if the Member hap again to be broke, *potiùs in alia parte frangitur, quàm ubi Callus eſt genitus*, it breaks any where rather than in the *Callus.*

Two things are therefore required: Firſt, that it be ſupplied with fit matter; ſecondly, that that matter be not waſhed from the edges of the fractured Bones, *aut foras evocetur*, ſaith *Galen.* As for the matter to make *Callus*, moſt Authors do agree, that there be a greater liberty in Diet. *At quo tempore* (ſaith *Galen*) *Callus gignitur, nutriendum corpus eſt cibis boni ſucci, & qui multùm nutriant.* And that muſt be viſcous: His reaſon is, *quia oſſis alimentum craſſum* And for that reaſon Authours commend at this time Offall of Fleſh, and Broths of Kid and Veal, and the like, boiled with Rice or Wheat. They alſo allow ſweet Wines. But this liberty in Diet I think is better forborn, for thereby we often ſee great Obſtructions ariſe, eſpecially there where our Patients are inclinable to feed plentifully. Therefore in ſuch Fractures where the Patient is conſtrained to keep his Bed, I propoſe a ſlender Diet, and of ſuch things as are of eaſie Digeſtion. For without that liberty ſurely we cannot fail to compleat our Cure; the Bones having naturally a Poroneſs in them, in which is always contained a matter fit for their Nouriſhment; and *ex illo ipſo nutrimento in fracturis generatur Callus*, of that Nouriſhment *Callus* is made. So if we be careful to prevent Inflammation, and the like Miſchiefs, which diſturb Nature in her actions, and apply ſuch Remedies as may dry the proper Nouriſhment into *Callus*, we ſhall not

Diet for the ingendring of *Callus.*

fail

fail then of our desire: And those remedies, according to *Galen*, ought to be Emplastick and moderately hot. For, saith he, *ea Callos tum promovent, tum augent: Quæ digerendi vim obtinent, ea magnos jam Callos diminuunt.* Therefore it behoves us with care to fit our Medicines to the Age and Constitution of our Patients. For those which are proper for Men of ripe age, if applied to Children and tender bodies, would so dry the *Callus*, that they would quite diminish it, and frustrate our Cure. In Children *Albucasius* commends to us the application of Whites of Eggs alone, or with a little *farina volatilis*: in those of more years, *pulv. myrrhæ, aloes, acaciæ, cum. tragacanth. thus, labdanum*, &c. *Emplastrum stict. Paracelſ. diapalm. oxycroceum*, severally or mixt, are proper. But this latter *Vigo* is very angry with, and says it is a Diabolical Emplaster, too hot for the Summer, and not very proper for Winter. *Vigo's emplastr. ad ossium fracturas* is excellent; and so is our *Catagmaticum* in the *London dispensatory*. As to internal Medicines, there are many; but I shall only recommend to you *osteocolla*, and that by the authority of *Fabr. Hildanus*, who often experienced it. The Dose was ʒj. *in aq. rad. symphyti:* And with this so given he cured a compound Fracture in one above sixty years of age. *At in juvenibus & succulentis non putat convenire osteocollum.*

Thus I have proposed fit materials for the generation of *Callus*: Now lest that the matter of which it is to be generated should be hindred from thrusting forth, it behoveth you to alter the Bandage, the Member not requiring to be rowled now so streight; by which means the nutritious Juices will have liberty to flow in, and there by gradual Digestion to thicken into a *Callus*. In taking off your Dressings, you are to consider whether the *Callus* generated be such as is required. How the fault of the *Callus* is to be remedied, if it be greater or less than it should be, you shall hear presently.

If the Fracture be simple, whether transverse or *secundum longitudinem*, they are cured by the same methods; only these latter require a more strict Bandage, otherwise the Bones will be apt to rise and make a gibbous Member.

The fifth Intention is, the correcting of those Accidents which happening in Fractures retard their Cure: And they are many; as Pain, Inflammation, Apostemation, Gangrene, Itching, Excoriation, *Callus* more or less than should be, Weakness of the Member, and depraved Figure. If Pain invade the place, then Lenients are proper, and such remedies as restrain Defluxion, and hinder Inflammation; of which sort I have mentioned some, and for more variety refer you to those which are set down in the Chapter of *Phlegmon*. If Gangrene appear, slacken your Bandage, and foment the Part with a *Lixivium* in which have been boiled *scordium, absinth. centaur.* and the like. You may also apply over all a Cataplasm of Barley-meal, Lupines, with the addition of such Ingredients as have been prescribed in the Chapter of *Gangræna*. But if Itching affect the Part, then foment it with warm Water, which will give a breathing to it by the Pores; or with Salt-water, *quæ propter salem expurgat & poros aperit*. The Itching neglected is wont to terminate *in excoriationem dolorosam*, in a very painful Excoriation, *cui occcurrendum est exsiccantibus & refrigerantibus*; such are *unguent alb. camph. nutritum, populeon*, &c. 5. Intention.

As to the *Callus*, it is sometimes just, sometimes greater or lesser than it ought. If it be too great, you will perceive it by its bunching out, as also it will be painful to the touch or pressure; and besides it renders the Part unapt for motion. In this case abate the Patient's Diet, make your Bandage more strict, and foment with Discutients, also apply *empl. de cicuta, de ranis cum Mercurio*, &c. To lessen *Callus*.

But

To encreaſe *Callus.*

But if the *Callus* be leſs than fit, the ſigns are, *quòd ad motum redditur debilis*, the Bone is weak, and if the Part be toucht you ſcarce feel the *Callus*. And this was thought by the Ancients to proceed from ſlenderneſs of Diet, or that it was not enough incraſſating. But I think it rather proceeds from improper Applications, or too ſtreight Bandage. Yet if the Patient be in years, and of a ſpare Body, you may both increaſe and incraſſate his Diet: But withal ſlacken your Bandage, and invite forth the Humours by warm Water, not too hot, *donec pars rubeſcat, & in tumorem attollatur*, until the fractured Parts a little ſwell; *tunc enim deſiſtendum.* But if the member be extenuated, it is either from the too ſtreight Bandage, or over-much bathing with warm Water: Therefore you muſt now bath with freſh Broths, and other good Embrocations. Alſo a Pitch-plaiſter applied, and preſently pulled off again, will by its adheſion to the Hair and Skin cauſe Pain, and likewiſe an attraction of Aliment to the Part, and ſo the member may be nouriſhed.

Sometimes alſo after the Fracture is cured, the Member is found to be of a depraved Figure, by reaſon the Bones were not well ſet, or through ill Bandage, or ſome inordinate motion, *aut propter inſcitiam Chirurgi.* To reſolve this *Callus*, ſome Authours have adventured to preſcribe ſundry Medicaments; but they have hitherto proved unſucceſsful. Yet if it be true what a Chirurgeon lately affirmed of *empl. de minio*, the work would be very facil. But *Celſus* and *Fabr. ab. Aquapend.* after the preſcribing various Remedies conclude at laſt thus: If the Patient be young and luſty, and the *Callus* but ſix months old, there is yet one refuge, that is, *fracturam de novo rumpere*: And in order thereunto, you are to foment the Part with Decoctions *ex althæa, rad. lilior. fol. malvar. tapſ. barbat. cicuta*, &c. and then *rurſus os frangitur manibus vel digitis, impellendo ſeu comprimendo.* But if the *Callus* be ſo hard that it yields not to your hands, then ſays *Fab. ab. Aquapend. frango eum inſtrumento attrahente in diverſas partes.* But this, *Albucaſius*, a Chirurgeon as bold as any, and one that had ſeen the effects of ſuch raſh undertakings, utterly condemns, ſaying, it is *operatio valde vituperabilis, perducens ad mortem*: therefore he adviſeth the Patient not to give ear to ſuch vain people, but rather content himſelf with ſuch help as emollient Decoctions, Liniments, and Emplaſters may effect. Which in truth is ſafer, if you conſider, that after the *Callus* is ſo confirmed that it will not yield to Extenſion, then if you ſhould break it anew, or any other way ſeparate it; yet it would no more yield to a right Coaptation, than a Hair-lip or my two Fingers will to Agglutination without ſeparating the Calloſity; which is not poſſible to be done in Bones.

I could have here inſerted many Inſtances of my work in the Cure of the ſeveral Fractures of particular Parts: But it would ſignifie little more than I have already written, their Cure conſiſting in the very ſame Extenſion and Coaption, and they being ſubject to no other Accidents than what I have ſet down: all which I have writ as plainly and feelingly, as if I had been performing the work in your preſence. Yet as a rarity I ſhall give you one Inſtance.

1. Obſervat. of a fractured Face.

SOme years before the Fire, I was ſent for to a poor Widow inhabiting near *Bridewell*, whoſe little Son, of about eight years of age, playing about the Wharf, was ſtruck by one of thoſe great Cart-horſes full in the Face, beating the *Ethmoïdes* quite in from the *Os cribriforme*, without any great Wound. The Boy lay for dead a while, and dozed longer. It appeared a ſtrange ſight at firſt to me, his face being beaten in, and the lower Jaw ſticking out: Nor did I preſently know how to help him, or by what art to make my Extenſion. But after a while, he a little recovering his Senſes, was perſwaded to open his Mouth,

Mouth. And there I saw the *Os palati* and *Uvula* beaten so close backwards, that it was not possible for me to get my finger behind, as I designed; and othe way of Extension there was none. Upon which I presently formed an Instrument bended up at one end, by which I got up behind the *Uvula*; then raising it a little upward, pulled it forward with the Bone into its former place very easily. But I no sooner let go my Extender than the fractured body returned back again. I then contented my self in dressing up the Face with a restrictive Cerote, to prevent the Influx of Humours, and let him blood, and within a few hours after caused an Instrument to be made, whereby the great fractured body was more easily brought into its natural place, and also kept there by the hand of the Child, his Mother and my Servants helping him some while: other way there was none. Thus by their and our care, the Tone of the Part was preserved, and a *Callus* thrust forth, which as it hardened, the Part grew stronger, and the Face was restored to a good shape, better than could have been hoped for from such a Distortion in that place. The Patient is yet alive and well.

2. Observat. of a fractured Clavicle, &c.

A Page attending a Noble Family, riding behind the Coach, fell down, bruised his Face, and broke his right Collar-bone. He was taken up and carried to the next Pretender to Chirurgery, who seeing his Face much swelled, and his Nose bloody, concluded it fractured, and fill'd up his Nostrils with Tents, binding them up with Plaisters; and finding his lower Jaws standing unequally with the upper, concluded them luxated, and that part of the *Sternon* under the Collar-bone was broken down. Things being thus represented, I was sent to view this Youth: and pulling off the Plaister, and the Tents out of his Nose, I saw neither Wound nor Fracture. His Jaws did not answer equally to one another; but by his frequent motion and champing with them, it was evident they were neither luxated nor fractured. But by his Fall the Bones of his Face seemed to be pressed inward, and the uppermost Jaws were crushed nearer one another than they should: and this made the Inequality which our Chirurgeon thought a fault in the lower Jaws, and by his pulling them had like to have broken or dislocated them. The next day he called in a Chirurgeon to justifie his proceedings. But there appearing nothing of Luxation or Fracture in the Jaws, we looked upon the *Sternon*, and found it well; but that Collar-bone was broken oblique, which we set and bound up, with resolution not to open it till it should be united. All things being in this hopeful condition, we advised him to keep his Bed, and left him to observe the Directions of his Physician, by whose prescription a Clyster was administred that evening, which he voided into a white earthen Chamber-pot, which his Chirurgeon looking into call'd it blood, and alarm'd his Friends. But a discreet person looking afterward upon it, concluded it only the Clyster tinctured with red Sugar, *Hiera picra*, &c. I being soon after fetched, confirmed the same, and appeased that clamour. About the tenth day our Chirurgeon, contrary to former order, undressed the fractured Clavicle: upon whose binding it too slack the Bone started, and from that time it grew painful; so that he dressed it again four or five days after: but the Pain increasing the more, I was fetched, and upon opening saw one end of the Clavicle riding over the other, and pricking against the Skin. The *Callus* being confirmed, the Patient was removed from his Chirurgeon's house to his Mother's in the City, where being in great Pain, his Chirurgeon dressed him again; and the streighter he made the Bandage, the greater was the Pain. He not imagining the cause, imputed the fault to the unruliness of the Patient, and declared that the Fracture was yet in the Bone, and that it was incapable of Cure. Upon which I was sent for, and seeing the Pain to proceed from the end of the fractured Bone pricking in the Skin, and the more when it was bound, I caused half a Wallnut-shell to be plaistered over

it: and having thereby defended it from Preſſure, he made uſe of his Arm, and complained no more of Pain. I then deſigned to cut off that end of the Bone if it again pained him: but from that time it continued eaſy, and he recovered the uſe of that Arm very well.

Compound Fractures.

Thus have I done with that which concerns Simple Fractures. In a Fracture with a Wound, if neither the Bone be bare, nor yet prominent through the Skin, then you are by Extenſion to bring the fractured ends of the Bone together, as was propoſed in the firſt and ſecond Intentions of Simple Fractures. And the Lips of the Wound are likewiſe to be brought together by Suture, if it be any whit large, and not too much contuſed. Which manner of dreſſing is contrary to what is taught in Gun-ſhot Wounds with Fracture; the method being to be altered upon that occaſion for the reaſons there alledged. Then endeavour, as in our third Intention, to keep the fractured and wounded Parts together by Dreſſings, which may as well mitigate the Pain, as keep off Apoſtemation, by repelling the Matter flowing to the Parts, and drying up that which already affecteth the Fracture and Wound: *qualia ſunt Aſtringentia*, that is by Aſtringents; with which I have ſufficiently furniſhed you in the Diſcourſe of ſimple Fractures. *Galen*, by the authority of *Hippocrates*, recommends Cerote of Roſes. But if there be no Pain, you are to endeavour the ſtrengthening of the Fracture, and preventing Defluxions, by Cloaths ſpred with that Compoſition of aſtringent Powders, mixt with the Whites of eggs and Red wine, which is already propoſed. Then follows Deligation of the Part: and in this caſe Bandages are to be made of ſofter and broader Linen than we uſe in Fractures without a Wound, that they may comprehend both the Lips of the Wound, and keep them down, yet not hurt them by too hard Compreſſion. *Minùs aſtringendæ ſunt faſciæ quàm ſi vulnus non adeſſet*, ſays *Celſus*. And therefore it is that *Hippocrates* and *Celſus* make ſo many Circumvolutions; *cùm melius ſit ſæpe circumire quàm aſtringere*, ſaith *Celſus* again. The third day they looſen the Bandage: then *ferulæ vel non apponendæ, nè vulnus comprimant*, ſaith, *Albucaſius*; or if they be put on, *ſuper vulnus apponi non debent*. Rather in theſe Fractures do we uſe Deligation, *pluribus faſciis*, with many Rowlers, ſaith *Albucaſius*. And ſo all along he proceeds in his Diſcourſes of Fractures, as if he had been rather bred under *Hippocrates* or *Celſus*, in *Greece* or *Italy*, than where he was. But in truth this way of Deligation is not only very troubleſome to the Chirurgeon, to put on and off, but ſo very painful to the Patient, that it is almoſt impoſſible that he ſhould ever be without a Fever, if his Wound be every day to be ſo rowled and unrowled. Therefore in theſe Compound Fractures we chuſe rather to follow the method of ſome of the Moderns, who, in ſtead of theſe many long Rowlers, make choice of two or three ſhort Cloaths, folded three or four times double, to give them the more ſtrength. We alſo make them of ſuch breadth, as to encompaſs the Lips of the Wound and the fractured Parts; and of that length, as to come once about the Fracture, and ſo ſtitch together on the moſt convenient ſide. And under theſe may be placed Compreſſes of fine Tow, or double Cloaths; which will not only keep the Lips of the Wound down, but fill up the Inequality, and further the expulſion of Matter. And ſo the Wound may be dreſt, and the fractured Member relieved at your pleaſure, without giving the Patient the pain to have the fractured Member removed, or your ſelf the trouble of rowling and unrowling ſo many long Rowlers as the Ancients propoſed. With this method I have cured Arms and Legs, ſo ſhattered by Splinters from Cannon-ſhot, and with ſuch loſs of Subſtance, that I even deſpaired of their Cure. But in ſome of theſe I have made uſe of *Hippocrates*'s

Plagulæ;

Plagulæ; and often, for the more ſtrengthening the ſhattered Member, have been glad to make uſe of ſome Splints from the firſt day; but ſo as their compreſſion was gentle and equal, and ſo placed that the Lips of the Wound might be kept even, and that the diſcharge of Matter was by them furthered. But if the Wound be tranſverſe, it then requires more caution, leſt the Matter ſhould at any time be preſt back into the Wound, and ſo not only dilate it, but foul the Bones.

Thus much for a Fracture with a Wound where the Bones are not expoſed to the Air. But if the Bone be bare, and thruſt it ſelf out of the Wound, you ſhall endeavour preſently to reduce it; and after it is reſtored to its natural place, let the Wound be ſtitcht and dreſt, as I propoſed to you even now in the Compound Fracture.

3. Obſervat. of a fractured Leg.

A Commander at Sea, valiantly fighting in the midſt of the Enemie's Fleet, had his Leg fractured by the fall of his Mizzen top-maſt, it breaking his Leg tranſverſe near the Ancle, the edge of the Bone thruſting out through the Skin. He not ſuffering the Bone then preſently to be ſet while it was warm, afterwards, when it was ſwelled and ſtiff, it did not yield to Extenſion, but became painful and inflamed. After ſome few days he was brought to *London*, and I was ſent to him. He was of an ill Habit of body, ſubject to the Gout and Dyſenterie; and the Fracture being accompanied with great Defluxion was not in a condition to admit of Extenſion. Therefore, according to *Fallopius* and *Hippocrates*, before cited by me in this Treatiſe, I propoſed to his Chirurgeon to proceed by Lenients, to mitigate Pain, Inflammation, *&c.* and by Bandage to hinder Defluxion. Which we did; and his Chirurgeon continued that method a few days, by which the Accidents were remitted. When we met again, finding the Patient in eaſe, we took off the Dreſſings, and agreed to make Extenſion, and reduce the Fracture. The Patient was of a dry tough Body, and the Member yielded difficultly to the Stretch: upon which conſideration we ſatisfied our ſelves with a moderate Extenſion, doubting that upon a more forcible one ill Accidents might follow, (as an Inflammation preſently did.) We dreſt it up as a compound Fracture: and after ſome days dreſſing a *Callus* thruſt forth, and united the Bones. That *Callus* being confirmed and dried, we haſten'd the Exfoliation of the foul Bone by a little *Ægyptiacum* and *pulv. myrrhæ* diſſolved in *ſpir. vini*, applied hot upon an armed Probe. Thus the Bone was exfoliated, and the Ulcer cured by the ordinary Intentions in ſuch caſes. Yet the inward leaning of the Bone continued a weakneſs in the Member a long time, as is uſual where the Fracture hath not been timely or well reduced. To remedy this, I cauſed a Bar of Steel to be fixed in his Shoe with joints, and by a Bracer of Cloath to be laced on, or tied with Ribbons on the outſide of his Leg; by which it was marvellouſly ſtrengthened.

But if the end of the bared Bone do chance to thruſt it ſelf ſo out, as that without great force it cannot be reſtored to its place; *tunc è duobus malis minus eſt eligendum*; then that end of the Bone which hath thruſt it ſelf ſo far out is to be ſawed off: and if this be done timely, before a Gangrene hath ſeized upon the Part, it may be performed with good ſucceſs.

4. Obſervat. of both the Focils of the Leg fractured.

In St. *Clement's* Pariſh behind the Church, ſome years ſince while I was one evening preparing my Dreſſings for the ſetting a fractured Thigh-bone in a little Child, I was haſtily fetcht to aſſiſt one Mr. *Powell*, a Barber-chirurgeon, in the ſetting a Fracture of both the Focils of the Leg in a Man about ſixty years of age, of a tough dry Body. There I met Mr. *Tatham*, an induſtrious knowing Chirurgeon. The Fracture was oblique, almoſt *ſecundum*

longitudinem; and the *Os tibiæ* or greater Focil hath ſhot it ſelf out by the inſide of the Ancle a great length. We endeavoured by a ſtrong Extenſion to reduce this fractured Bone into its place; but it yielded very difficultly to our endeavour: yet we reduced it, and afterwards cleanſed the Wound of what Shivers or pieces of Bones we met with, and brought the Lips of the Wound together by Suture, hoping thereby to keep the fractured Bone the cloſer. Then we dreſt the Wound with our Digeſtive warm, and with an *empl. diachalcit.* malaxt with *ol. roſ.* and over the fractured Parts we applied the Mixture following ſpred upon a double Cloath: ℞ *flor. roſ. rubr. balauſt. baccar. myrtill. bol. Armen. ſang. dracon. an. q. ſ. pulveriz. cum albumin. ovor. ol. roſ. & acet. Miſc. ad conſiſt. mellis.* This we faſtned by Bandage, as hath been ſhewed in Compound Fractures: and for the more ſtrengthening the fractured Member, we placed *Splenia* over that Bandage, with *Ferulæ* upon them; and having faſtened them by three Ligatures, we placed the Member as much to the eaſe of the Patient as we could contrive, upon a Pillow quilted in the middle, with Junks to keep it ſteady. But theſe great Fractures with large Wounds, and near the Joint, are always ſubject to grievous Pain; and this much more, for that the Tendons and Muſculous fleſh were ſoarly torn, and ſtretcht by the great Extenſion: ſo it was not likely to be attended with leſs miſchief than afterward befel it. We let him blood that night, and gave him an Anodyne draught to diſpoſe him to reſt. But he ſlept little, his Pain continuing with much diſturbance: a Fever alſo followed, and within two or three days he became delirous, and in the abſence of his Attendents got out of his Bed; upon which the great Focil flew out as at firſt, and the poor man fell down on the floor as half dead. We were both preſently fetcht, and taking off the Dreſſings, we ſaw the Bone diſtorted, the lower Stitches broken, and the Wound of an ill aſpect, as it were tending to Mortification; alſo the Bone thruſt out ſo far, that there was no hopes of its being any more reduced by a new Extenſion. Upon which conſideration we reſolved to ſaw off the end of it: and to that purpoſe having prepared all things ready, we cut out the remaining Stitches, and turned the Foot on one ſide towards the Small of the leg, thruſting the Bone more out; the one ſawing the end off, whilſt the other with a *Spatula* defended the Tendonous fleſh underneath from being wounded by the Saw. That done, we cleanſed the Wound from the Saw-duſt, as alſo from the Shivers of little Bones which we had not diſcovered in our firſt dreſſing, they lying pricking the *Perioſteum*, between the fractured Bones and Membranes, by which thoſe ſad Accidents had been haſtened. The Wound thus cleanſed, we turned the Foot right into its natural place, there being no need of Extenſion: which being done, we ſcarified the Lips of the Wound, and waſht them *cum ſpir. vini*, with a little *Ægyptiac.* diſſolved in it, and applied to the ends of the Bones Pledgits dipt in the ſame, and preſt out. We alſo dreſt the reſt of the Wound *cum unguent baſilic.* with a little *ol. terebinth.* warm, and applied a Mixture of an *Emplaſtrum Paracelſ.* and *diachalcit.* over the Wound and Parts about, and then a Compreſs and Bandage over that, as in Compound Fractures. The great work was now, how to ſupport the Foot, and keep it even with the reſt of the Leg, there being ſo great a diſtance between them without any Bone. But we having placed the Leg upon a quilted Pillow, laid him again in his Bed, and fitted it in a Wainſcot-caſe, where it was kept ſteady and equal, and lay conveniently for our daily dreſſing him. This done, we committed him to the care of his Friends to keep him there quiet, and ordered him cordial Juleps, *&c.* After ſome hours we let him blood again. From that time his Pains leſſened, and his Fever and other

ill

ill Symptoms went off as the Wound digeſted. But after ſome days the Heel became very painful, and a Slough was diſcovered to us inflamed with an Ulceration ſticking to the very Bone. The Patient not permitting to have the Caſe, wherein his Foot and Leg was, ſtirred, it had not been raiſed up, as for perſpiration it ought to have been; whence this Ulcer became very troubleſome to us. For a preſent Relief, we laid him upon his Side, and dreſt the Ulcer with Lenients, to haſten ſeparation of that Eſchar. And becauſe the Patient grew ſoon weary of this Poſition, which alſo was inconvenient for our dreſſing the great Wound, we therefore deſigned an Inſtrument of Tin to receive his Foot and Leg, his Heel to lie hollow in a place cut for that purpoſe, whereby we could daily dreſs it without diſturbing the Patient, only placing him down lower towards the Bed's feet, that the Heel might lie over it. The ſide of this Inſtrument, that came up by the Wound, was to be taken off at the time of dreſſing his Wound, and afterward placed cloſe again; whereby he was dreſt without diſturbing the weak Member. It lay alſo ſoft, by reaſon of the Folds of Linen we placed under and between the Leg and Inſtrument: it was alſo kept ſtraight, in hopes it might be ſupplied with *Callus*. But the Wound became ſinuous, and the Matter fouling the Bones hindred the growth of *Callus*; and while we waited for Exfoliation, the Lips of the Ulcer became callous, which prolonged the Cure. The Ulcer in the Heel we digeſted: and after we found the Bone would not incarn, we dreſt it with *unguent. Ægyptiac.* with a little *Merc. ſubl.* diſſolved in it; by which dreſſing we haſtened the Exfoliation of the Bone, and cured the Ulcer. The Wound above was a larger work: but after the generation of *Callus* it cured as a *Fiſtula* with carious Bones. The Patient lived many years after: but through the ill diſpoſition of the Ulcer, the *Callus* was hindred in its growth, whereby the Leg remained the ſhorter, almoſt as much as had been ſawed off of the Bone. Yet this was better, I ſuppoſe, than to leave the Bone diſtorted until Digeſtion, as in ſuch like caſe I have ſeen done. But if the Bone be not ſo much diſtorted as that you may come to ſaw off the end of it, or if you cannot reduce it after the ordinary way; then you may with a Chizel-like inſtrument thruſt between the fractured ends of the Bone, and uſe it after the manner of a Lever, for the reduction of the Prominencies. But then it is ſuppoſed theſe fractured ends of them are within the Wound, and have not much over-ſhot one another, and the Fracture is tranſverſe or oblique: otherwiſe this way will do little good; nay may poſſibly rive up the piece of Bone, and make another kind of Fracture, and grievouſly pain the Patient to no purpoſe. And that you may eaſily do, if the ends break off upon your hard and unſteady Extenſion. Therefore it becomes you to be very wary in making this Extenſion; elſe, I ſay, you may put the Patient to ſad Pain, and do him little good.

But to conclude, after your Extenſion is made, and the Bone reduced, you are to feel if there be any Shivers of Bones looſe, and pull them out. And if you perform this Operation in a Fracture newly made, then you are to prevent Inflammation and all other Accidents, by dreſſing up the Patient with ſuch Medicines as have been propoſed in Compound Fractures; and make your Bandage ſo, that you may come to dreſs the Wound, as occaſion ſhall offer, with as little moleſtation of the fractured Member as is poſſible; having a care you grieve not the tender Parts with Splints, until the Inflammation be over, and the Wound well digeſted.

Then afterwards 'tis to be endeavoured, that the Bones robb'd of their *Perioſteum* may again be incarned or exfoliated; which is the work of Nature,

ture, yet ought to be helpt by Medicines which have a manifeſt hot and drying quality, and a peculiar faculty thereto, of which there are enough ſet down in the Treatiſe of *Gun-ſhot Wounds.*

The Bones exfoliated, the Cure of the Ulcer will ſucceed of courſe, or may be performed by Epuloticks, of which you may have choice in this Book.

Chap. II.

Of Luxations in general.

IN ſeveral Obſervations in this Book I have had occaſion to take notice of the inconvenience many people have fallen into through the wickedneſs of thoſe who pretend to the reducing luxated Joints by the peculiar name of *Bone-ſetters*: who (that they may not want imployment) do uſually repreſent every Bone diſlocated they are called to look upon; though poſſibly it be but a *Ganglion*, or other crude Tumour or preternatural Protuberance of ſome part of a Joint. In which caſes their raſh Extenſions do frequently cauſe ſad Accidents But their more gainful way is, by extending, and dreſſing up Joints rather wrencht than diſlocated: in which if they eſcape undetected, they muſt needs reap great credit, the Patient recovering ſo ſoon the eaſe and uſe of them. Whereas if the Joints happen really to be luxated, ſcarce one of them knoweth how to reduce them. In conſideration of this daily abuſe, and the inadvertency of the young Chirurgeon, whoſe not timely diſcerning the Luxation renders it more difficult to reduce, I have thought fit to ſay ſomewhat to this part of Chirurgery; and firſt in general.

Connexion of Bones.

He that will give an account of *Luxations*, and the manner of their Cure, ought firſt to deſcribe the Connexion of the Bones to each other: on the divers manners of which depend the great variety of methods in reducing and handling of them. Theſe Connexions we find to be of two ſorts; 1. *Symphyſis*, 2. *Articulatio.*

Symphyſis.

I. *Symphyſis* in its original ſignification denotes a *Connaſcency* or *Growing together*; and perhaps is meant of thoſe Bones which in young Children are diſtinct, but after ſome years unite and conſolidate into one Bone. So the *Os ileon* and *Os pubis* are two diſtinct Bones in a Child, but unite into one in a Man: the *Epiphyſis* of the *Os femoris* is a diſtinct Bone from it in a Child, whereas in a Man they do intirely unite. But cuſtome and the uſage of Authours hath found out another ſenſe of the word, fitted to adult perſons; in whom it is uſed to mean ſuch a Connexion of two Bones together as is immovable: and of theſe there are two ſorts.

1. An immediate Conjunction, or Juxtapoſition, (if I may ſo call it,) without the interpoſition of any other Body. Of which we find three Species.

Firſt, *Sutura*, or the indented Conjunction of Bones in the Scull.

Secondly,

Secondly, *Harmonia*, when without toothing or interfearing they do joyn immovably in a ſtraight line: as the Bones in the upper Jaw.

Thirdly, *Gomphoſis*, or the Connexion of a Tooth to its Socket.

2. Mediate, where the Connexion is made by interpoſition of another Body. Of theſe we likewiſe find three ſorts: which notwithſtanding are not ſo peculiar to the *Symphyſis* as it is oppoſed to *Articulatio*, but that they may be found in that alſo. They are theſe that follow.

Firſt, *Syſſarcoſis*, when two Bones are joyned together by the intervention of Fleſh. An inſtance of this in the *Symphyſis* is, the Conjunction of the Teeth to the Mandible by the Fleſh of the Gums. In Articulations we ſee it in the Elbow or any other Joint, where one Bone is connected to another by Muſcles.

Secondly, *Synneuroſis*, when the Connexion is made by a Ligament. Of this in *Symphyſis* we find inſtances in the Connexion of the *Oſſa pubis* together, eſpecially in Women, by a ligamentous ſubſtance. In Articulations it is either round, as that which unites the head of the *Os Femoris* to the *Coxa*; or broad, as the Tendon of the *Patella*, which unites it to the *Os tibiæ*.

Thirdly, *Synchondroſis*, which is an Union by Griſtles. A *Symphyſis* of this kind we have of the *Sternon* to the Ribs. Articulations are moſt of them ſo joyned, there being few Bones deſtin'd for motion which have not cartilaginous heads for the facility thereof. Theſe two latter ſorts of Union are compounded in ſome Articulations; as in the *Oſſa coxæ*, where you have Tendons and Griſtles both to joyn them together. This is by *Galen* called *Neurochondroſis*.

II. *Articulatio* is a Connexion of Bones with aptneſs of Motion. Something hath been anticipated already concerning this Head, becauſe of its coincidence with *Symphyſis*, in the forementioned inſtances. But take it as it is in it ſelf, and you will find it to have this difference. There is, *Articulatio*

1. A conſpicuous Motion, which where it happens, the Conjunction is called *Diarthroſis*; as in the Elbow, Thigh, and Knee.

2. An obſcure one, where the Conjunction is called *Synarthroſis*; as in the joyning the *Carpus* to the *Metacarpus*, the *Tarſus* to the *Metatarſus*. And both theſe are divided into the three following Species.

Firſt *Enarthroſis*, where a good round Head enters into a Cavity: whether it be *Cotyla*, or profound Cavity, as that of the *Os coxæ* receiving the head of the *Os femoris*; or Glene, which is more ſhallow, as in the *Scapula* where it receives the *Humerus*. Of more obſcure motion is that Connexion of the *Os tali* with the *Cymbiformis*, which is an *Enarthroſis*.

Secondly, *Arthrodia*, where the Cavity is very ſuperficial: as between the head and the firſt *Vertebra* of the Neck, in *Diarthroſis*; and between the *Carpus* and *Metacarpus*, in *Synarthroſis*.

Thirdly, *Ginglymus*, which is a mutual Indenting of two Bones into each other's Cavity: of which the Elbow is an inſtance, in *Diarthroſis*; the *Vertebra* of the Back, in *Synarthroſis*.

Many other things might be ſaid on this ſubject, were it pertinent to my preſent deſign, which is only to regard the Union and due Conformity of Joints, in order to the Doctrine of Luxations, in which the Articulations are chiefly concerned. For when thoſe that are united by *Symphyſis*, as the Sutures of the Head, and the Bones of the *Maxilla ſuperior*, are diſlocated, there is always a Fracture concomitant, and the whole is treated as a Fracture. When the Teeth are diſlocated, or to be diſlocated, a Tooth-drawer is conſulted.

Articulations

Articulations therefore, whether by *Diarthroſis* or *Synarthroſis*, are the Subject on which my preſent Diſcourſe concerning Luxations is founded.

Definition of a Luxation. When therefore two Bones, which being naturally united make up a Joint, are ſeparated from each other, we call it a *Luxation.*

The Ancients called it a Slipping of the Head of a Bone out of its Cavity. Which is true of the great Joints, but not of all: for the broad end of the Clavicle, where it reſteth upon the *Scapula*, hath neither Head nor Cavity, yet is capable of Luxation.

Differences. Luxations admit of ſeveral *Differences.*

1. From the Subject; *viz.* whether it be a place of obſcure motion, or a manifeſt one. An inſtance of one is, when the Clavicle recedes from the *Scapula*; which the *Arabians* call a Disjunction. Of the other, where an Elbow, Shoulder, *&c.* is disjointed; which is moſt properly termed Luxation. There is alſo a peculiar Luxation proper to Children, *viz.* when the *Epiphyſis* of a Bone ſeparateth from the Bone, they being not throughly conſolidated into one; which however is treated like a Fracture, and conſequently deſerveth no place in this Diſcourſe.

2. From the Degree of it; *viz.* whether it ſlip out wholly, or only in part, *viz.* to the margin of the Cavity that containeth it. To this latter ſort may be referred thoſe Elongations which are the effect of an Humour ſoaking upon a Ligament, (as that of the *Coxa,*) thereby making it liable to be ſtretcht, and to be thruſt quite out upon every little force.

3. From the Situation and Figure of the Part, as whether upward, downward, forward, backward, on the right ſide, left ſide, *&c.* of which more in the following Chapters.

4. Differences may alſo be taken from Accidents attending them; as Inflammations, Wounds, Fractures, *&c.*

Cauſes. *Cauſes* of Luxations are internal, or external. The internal are the Humours which affect the Joints, and either by relaxing the Ligaments give way to the Bone to depart from its natural ſeat; or by a contraction of the Tendons put it upwards out of the Cavity. Both theſe ſorts I have ſeen in Children, and it's likely it was in ſome of them hereditary; as *Sennertus* hath well obſerved, *à gibboſis gibboſos, à claudis claudos generari.* The external Cauſes are, Blows, Falls, violent Extenſion: in which latter caſes Infants ſometimes ſuffer by the hands of Midwifes, or at more age by the negligence of Nurſes.

Signs. The *Signs* of Luxation may be taken from the loſs or imperfect motion of the Joint, and from the different reſemblance it hath with the contrary ſound Member; there appearing to the eies or touch a Cavity in the Part whence it receded, and a Protuberance where it is lodged: the Member is alſo rendred longer or ſhorter, according as the Bone is diſtorted.

Signs of Reduction. The Signs of Reduction are the contrary to what have been before delivered. There is alſo a craſhing noiſe made by the Bone in its return to the Cavity. But this is not always a certain ſign; for it may proceed from an Eruption of ſome part of the margin of the Cup or Cavity. In which caſe the Luxation is for the moſt part rendered incapable of Reſtitution. But this Fracture maketh a different noiſe from the other, and may be eaſily diſtinguiſhed by the diſcerning Artiſt.

Prognoſtick. In Children and moiſt Bodies luxated Bones are eaſieſt reduced, but are with great difficulty retained: in elderly and dry Bodies the contrary happeneth.

Luxations of long continuance are difficultly reduced, and are for the moſt part as hardly retained, the parts growing emaciated. Thoſe of the *Vertebræ*

occa-

occasion'd by external Accidents are for the most part mortal: whereas some of those by Congestion are frequently cured.

Cure. The Bone luxated maketh compression on the neighbouring Parts whither it slippeth; and accordingly as those Parts are of more or less sense, so are the Pains and Accidents that attend it. You ought to hasten the restoring it to its place as soon as may be. The work is purely Chirurgical, it having no dependency upon Nature, but the Extension and forcing back of the Bone into its proper seat is done by the Hands of the Artist. There are four Intentions necessary to the Cure: 1. Extension, 2. Reposition, 3. Deligation, 4. Collocation, or placing of the Member in a right Position.

1. Intention. Extension is first required, because of the situation of the Bone, which being out of its due Socket rendreth the motion of the Muscles useless, or rather hurtful, which the more they pull the Bone, the more they distort it, and contract the Joynt. This therefore cannot be committed to Nature, but requireth manual Operation.

2. Intention. The Extension being well made, you are at the same instant to restore it to the place it fell from. And to do this, you must consider well the luxated Joint, and which way it slipped out; for it requireth to be returned in the same manner. If it lie on the right Side, it must be prest back to the left: and so if it be luxated forwards, it must be forced backwards. The Shoulder requireth one way, the Elbow another, and the Knee or Ancle another. If the Luxation hath been of any continuance, or if the contraction of the Muscles be great, it will be reasonable that you first relax them by emollient Embrocations, *viz. unguent. dialthææ, axung. human.* &c. lest by your violent forcing in the Bone you affect the Nerves, and cause a *Paralysis*, &c.

3. Intention. Being satisfied in the Reposition of the Bone, you shall then take care to keep it so: and that is performed by Deligation. But before you make the Bandage, you ought to apply such Medicaments as have vertue to resist the Influx of Humours, and strengthen the Part: and those are Astringents, and such as have been proposed in the foregoing Chapter of Fractures; *viz. bol. Armen. sang. dracon. farin. volatil. balaust. flor. ros. rub. cum albumine ovi, aceto, aut vino rub.* If there be great Pain, you may embrocate *cum ol. ros. lumbricor. mastichin.* and apply *empl. è bolo, diapalm. de minio*, &c. Then place a Compress wrung out of some of the aforesaid Liquours on that Part whither you suspect the Bone may again tend, and roul it on close accordingly as you see occasion.

4. Intention. The last Intention is Collocation, or placing of the Member; and that ought, for the ease of the Patient, to lie soft, and somewhat raised up, neither much extended, nor too much bent, a middle figure being best to prevent Pain. Yet if it be the Shoulder that is luxated, the Elbow ought to be kept to the Side, and the Hand upon the Breast. If no Accident happen, you must not dress it again till the seventh day; and then you may alter the Position, and move the Joint a little to and fro, and dress it up with such Medicaments as may give a breathing to the Humour, and corroborate the weak Joint. In case it itch, bath it with Salt-water; otherwise with a Decoction *ex summitat. absinth. flor. cham. ros. rub. balaust. bacc. myrtil. juniperi, nuc. cupressi*, &c. to which may be added *spir. vini.* All greasie Applications relax the Tendons, and prolong the Cure.

Luxations made by Congestion do require Emollients to resolve and breath forth the crude Humour affecting the Joint, Ligament and Tendons: to which purpose ℞ *rad. althææ* ℥vj. *rad. cucumeris asinini* ℥iij. *summitat. majoran.* Mij. *coctis in brodio ex pedibus vitul. & contusis adde pulv. sem. fœnugræci & lini an.* ℥j. *ol. lilior. axung. human. an. part. æq. fiat Cataplasma.* You may

alſo uſe *emplaſt. diachyl. cum gummi*, *de mucilaginibus*, *de ranis cum Mercurio*, &c. That Matter being thus reſolved, you may then proceed in the Reduction of the relaxed Bone: and after you have reduced it, apply ſuch Medicaments to it as may dry up the ſuperfluous Humidity, and ſtrengthen the Joint: of which ſort I have given you an example in the fourth Intention. There will alſo be required ſome extraordinary Bandage to retain the Bone in its place: but of that I ſhall have more fitly occaſion to diſcourſe in ſome of the following Obſervations, as alſo of *Paralyſis*, &c. which frequently attend great Luxations.

Chap. III.

Of Luxation of the lower Jaws.

Proceſſes of the Jaws deſcribed.

THE Proceſſes of the lower Jaws are two on each ſide.

1. One more acute, called by Anatomiſts *Corona*; which hath no Socket properly ſo called, but playeth in the Hollow of the Cheek according to the motion of the Temporal Muſcles, whoſe Tendon is inſerted into it.

2. Another more obtuſe with a roundiſh Head, called *Condylus*. This hath for its Socket the firſt *Sinus* of the *Os temporum*, in which it moves; and is kept cloſe to it by the Muſcles which lay hold on either of the *Coronæ* before mentioned, as the Temporal, or of the outward broad Angle, as the *Maſſeter*, or the inſide of the broad part of the Jaw, as the *Pterygoïdes*. Theſe Muſcles by their perpetuall tendency to a contraction (which is the nature of all Muſcles,) keep the Bone ſteady in its ſituation; but much more ſo when they are voluntarily contracted for Maſtication, Speech, *&c.*

It is remarkable, that though Nature hath made other Muſcles to open the Jaws, as well as theſe to ſhut them, yet they are in themſelves ſlender, and not inſerted into this part of the Jaw, but quite before at the Chin, ſo that in their motion they do not pull down this part of the Jaw, but the fore-part onely: whereas the attollent Muſcles being laid nearer to the *Condyli* on each ſide, keep them ſo cloſe to their Sockets as to make them a Joint, or center of motion: from whence according to the cuſtom of Levers and Balances, it falleth out, that thoſe little digaſtrick Muſcles, by being applied to the remoter part of the Jaw, which maketh the circumference, become equipollent to all the bigger Muſcles before mentioned; nay, are ſometimes ſo valid, that upon over-ſtretching, as in Gaping and Yawning, they pull the *Condylus* out of its Socket. Sometimes the attollent Muſcles themſelves do pull it, when we violently gnaw any large Bone, Griſtle, or other thing that is hard, and withall ſo big as to be neceſſarily detained in the fore-part of the Mouth.

This Luxation can be made but one way, *viz.* when it ſlippeth over the fore-ſide of the *Sinus*, and paſſeth into the Cavity of the Cheek under the

Os

Os jugale; it being so defended by Bones, that other ways are impossible without a Fracture.

When this Luxation happeneth, the lower Jaw is thrust forward, the Teeth are prominent beyond those of the upper, the Patient can neither swallow nor speak nor chew, nor indeed shut his Chaps. If you see him presently before any Tumour supervene, you will find the Temporal Muscle rigid. If one side only be dislocated, the Mouth is distorted, as if the Patient had a *Spasmus*; the fore-part of the Jaw is thrust down on one side, *&c.* Signs of Jaws luxated.

The Reduction of the Jaws is said to be difficult, and that if they be not timely reduced, ill Accidents do happen, *viz. Paralysis*, Strangulation, *&c.* To which I can only say, that I never met with any difficulty in the replacing them, nor yet saw any such Accidents as by Authours are mentioned: but certainly they are in danger of famishing, for they can neither eat nor drink while the Jaws are luxated. Prognostick.

In order to the Reposition of the Jaws, the Patient ought to be seated firm, and his Head held steady, lest it start back in the time of Reduction. Then place a couple of Wedges of Wood close between his great Teeth, as far as you can thrust them, and your Thumbs close by them, and your Fingers externally under both the Jaws, extending them moderately; and at the same instant press the farther parts of his Jaws downwards, and raise up the fore part. If his Teeth be too sharp for your Thumbs, put a fold of Linen between. If only one of the Jaws be luxated, move it to the contrary side, and keeping it in that posture, place your Hand as aforesaid, with your Thumb upon his great Teeth, pressing that part downwards, and raise the fore-part upwards by a quick moderate Extension, and you shall feel it reduced, and may conclude it so by the equal meeting of his Teeth, and by the opening and shutting of his Mouth, also by his ready Speech. If after Reduction you suspect his Jaws may prolapse, you may apply a Defensative with Bandage; or in case of Pain, embrocate the Temporal Muscles and Parts about with *ol. lumbricor. mastichin.* &c. But hitherto I never saw occasion to apply any thing. Reduction.

A Woman aged about fifty six years was sent to me from a worthy Lady in a neighbouring Country: both her Jaws were luxated, the obtuse Processes of them were slipt forward and shot under the *Os jugale*, and her Chin was thrust forward and inclining down towards her Collar-bone. She had been so three days, during which she could neither eat, drink nor speak. I placed her in a Chair, and Dr. *Lenthall*, who came with her, held her Head. Then I placed my Hands on the outside and under her Jaws, and my Thumbs upon her great Teeth, with a Compress of soft linen under each; and whilst I pressed hard down the farther parts of the Jaws, I raised up her Chin, and reduced them in a moment: and to satisfie her that they would not slip down again upon an ordinary motion of them, I perswaded her to eat and drink; then dismissed her without application of Plaister or Bandage. 1. Observat. of a Luxation of both Jaws.

A Gentleman of about forty years of age, of a sickly weak Constitution, had his right Jaw distorted, by which his Mouth being drawn awry, it was supposed a *Spasmus*, and various Applications had been made to that purpose. One morning, walking amongst my Patients, I met his Apothecary, who telling me the case his Patient was in, I replied, his Jaw was certainly luxated: upon which I was the next day consulted, and saw it so. I laid my Hand on the outside of that distorted Jaw, and placed my Thumb with a Rag wound about it upon his great Teeth as far as I could thrust it, and laying my other Hand upon his sound Jaw, I drew the distorted one straight out; and whilst 2. Observat. of a Luxation of the right Jaw.

whilst I preſſed down the hinder part, I made Extenſion, raiſed up his Chin, and reduced it. He did not at that inſtant believe it, but he was ſoon after confirmed by the uſe he had of it. It continued well without any manner of Application to it.

CHAP. IV.

Of Luxation of the Clavicle, or the Collar-bone.

The Clavicle deſcribed.

THE Clavicle is a crooked Bone made in the figure of an *ſ.* one end of which being thicker, and almoſt three ſquare, is inſerted into a Cavity purpoſely fitted for it in the firſt Bone of the *Sternon*, and bound in by a ſtrong ligamentous Membrane. The other end, being broad and flat, is joyned to the *Acromium*, where it not only ſerveth to keep the Shoulder at due diſtance from the *Sternon*, but alſo aſſiſteth thoſe ſeveral Proceſſes which are provided by Nature to preſerve the Shoulder-bone from ſlipping upwards from its Cavity.

This Bone is capable of a double Luxation, one at the *Sternon*, and that only outwardly, where it riſeth from the Breaſt, and lieth like a Lump. The broad end near the *Acromium* is alſo ſubject to a twofold Luxation, *viz.* upward, and forward; being defended from all other Diſtortions by its neighbouring Bones.

Cauſe and Sign of a luxated Clavicle.

This Luxation is for the moſt part occaſioned by a Fall and pitching upon the Shoulder. It is diſcerned by the Prominence it maketh.

Prognoſticks.

The Clavicle is not ſo ſubject to Luxation as other Bones; but being luxated, it is moſt difficultly retained after Reſtitution, by reaſon of the ſmoothneſs of its heads, and the little hold they have upon the *Acromium* and *Sternon:* And if it be not reſtored, the uſe of the Arm is impaired in ſome of its motions.

Reduction.

The Reduction of the Clavicle, which end ſoever of it be luxated, muſt be made by drawing that Shoulder backwards, and by preſſing the luxated end even with the *Acromium*, or to the Cavity of the Bone of the *Sternon*, whence it departed. Neither of the placesa ffordeth it much room, therefore it will require your greater care: For if you place it not exactly, it will ſcarce hold right till you make your Applications. Therefore you muſt have ready Emplaſticks, Compreſſes, and Bandage. Splints are alſo of uſe, whether they be of Paſtboard, the Scabbard of a Sword, or Tin. The Bandage ought to be a Rowler with two heads to come over the Shoulders, and under the Arm-pit, making ſo many Circumvolutions as may retain the Dreſſings cloſe. This being well made, his Arm muſt be kept up with a Napkin or Towel, and his hand placed upon his Breaſt. If all be well, you ought not to looſen the Bandage till you judge it united, which may be gueſſed at by the eaſe and uſe of that Arm.

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I Was fetched to a young Fellow, who by a Fall from his Horſe was ſuppoſed to have broken his left Shoulder. Upon view of it, I ſaw the end of the Clavicle ſeparated from the *Acromium*, and lying prominent without any manner of Fracture; but the head of the *Os humeri* was bruiſed, and remained ſugillated long after. I cauſed one ſtanding behind him to pull back the *Scapula*, and with my hands forced down the end of the Clavicle, and placed it to the *Acromium*; then applied an Emplaſter of aſtringent Powders mixt *cum album. ovor.* &c. over the Clavicle and Shoulder, with a piece of Paſtboard wet *in aceto* and Whites of Eggs; over which I applyed a dry one, and upon that a Compreſs wet with ſome of the former Liquour, and rowled it on with Bandage as above ſaid; then wet that part of it over the Clavicle with Whites of Eggs, to ſtrengthen it and retain it firm. That done, his Shirt and Doublet were put on, and his Arm tied up, as hath been ſaid. Then I put him to bed, and let him blood in the other Arm, and kept his Body ſoluble by lenient Purgatives. After he had lain four or five days in bed, I obſerving the Bandage tight, and the Pain and Accidents diminiſhed, permitted him to riſe, and walk up and down in the houſe. About the eighteenth day I took off Dreſſings, and ſaw the Bone right in its place, the Parts about being only marked with the extravaſated blood. I embrocated them with *ol. lumbric. & ſpir. vini*, and applied an *empl. ſtict. Paracelſi & diapalmæ*, rowling it up as before, and from that time dreſſed it no more, but ſaw him afterwards well abroad.

1. Obſervat. of a Clavicle luxated.

Another having by accident of a Fall in wraſtling ſtarted the end of the Clavicle from the *Sternon*, I made Extenſion after the ſame manner as above ſaid, by pulling his Shoulder backwards, and preſſing the while with my hands upon that end of the Collar-bone, till I had replaced it, then dreſſed it as aforeſaid. But the next day, finding the Patient in Pain, and the Dreſſings raiſed up, I concluded the Bone diſtorted. Whereupon I cauſed a Tin-plate to be made in the form of the Clavicle, and to reach from one Shoulder to the other, cut at the ends, to receive the fore-parts of the Shoulders, and keep them out. Then I took off Dreſſings, and reſtored the Bone again to its place, and repeating the former Applications, placed the Tin-plate over the Compreſs, and rowled it on cloſe. This Plate ſate eaſy, and ſerved to keep out his Shoulders, alſo retained the Bone in its place, whereby he was happily cured without more dreſſing.

2. Obſervat. of a Luxation of the Clavicle.

CHAP.

Chap. V.

Of Luxation of the Shoulder.

Deſcription of the Shoulder-bone.

THE head of the Shoulder-bone being round is inſerted into ſo ſhallow a Cavity in the *Scapula*, that were there no other Guards for it, it would fall out or be thruſt out almoſt upon every occaſion. But Nature, that found that ſhallowneſs neceſſary to the variety of motions which is intended for the Joint, found other ways of ſecuring it from running out. *Viz.* 1. upwards it is prohibited from an excurſion by the *Acromium*, the Proceſs *anchriformis*, and the broad end of the Clavicle, which reaching over the latter to the edge of the former, addeth to the ſtrength of the place. Nor is this all, for Nature hath made a ſtrong Ligament which reacheth tranſverſe from the Proceſs *anchriformis* to the *Acromium*; and to confirm all, hath laid underneath theſe not only a ſtrong circular Ligament, which involveth the whole head of the Shoulder, (being indeed a collection of the Tendons or the Muſcles, which lying under and upon the *Scapula* particularly ſerve for the motion of the *Humerus*, or elſe lying upon the *Humerus*, do take their origine from the *Scapula*,) but alſo a Tendon of one of the heads of the *Biceps*, which paſſing through a peculiar Notch or Trench of the *Humerus* inſerteth it ſelf into the head of the *Scapula*. Over all theſe lieth the *Muſculus deltoïdes*, binding all in ſo ſtrongly, that if the Elbow chance to be ſo puſhed that it forceth the *Os humeri* upon this Fortreſs, it ſooner breaketh into ſhivers than maketh a way through. 2. The principal Guard it hath from falling inwards and downwards is its pendulous poſture, together with the many Muſcles that keep it in that poſture, and chiefly the Tendon of the *Biceps externus*, (as it is called in our Hall) and of the *ſubſcapularis*, with the *rotundus minor*. Yet are not theſe ſo ſtrong, but that between the Tendon of the *ſubſcapularis* and the *Biceps externus* it is apt to flie out into the *Axilla*. All other ways are ſo barricadoed with Bones or Tendons, that the Luxation is very difficult: yet I have ſeen it lie forward ſomewhat under the Pectoral Muſcle; but whether it was forced thither in their attempting to reduce it out of the *Axilla*, I cannot certainly ſay, but do ſuppoſe it might.

Cauſes of Luxation of the Shoulder.

The *Cauſes* of this Luxation are for the moſt part external, by ſome violent force, either in Wraſtling, Running, or by a Fall from a Horſe, or the like. In the time of War it may happen by the force of great Shot or Splinters. Some inſtances whereof you may ſee in the Treatiſe of *Gun-ſhot*. But it ſometimes happeneth from an internal Cauſe, *viz.* a Catarrh or Fluxion of Humours upon the Muſcles or Tendons, which gradually relaxeth them to ſuch a degree, that the head of the *Os humeri* ſlideth down into the *Axilla*.

Signs.

Its deſcent into the *Axilla* appeareth by an unuſual Cavity in the head of the *Scapula*, where it naturally is full and round. You may alſo feel the head of the *Os humeri* lying in the *Axilla* hard and round: the Patient's Elbow hangs from his Side, and cannot be brought ſo cloſe as the ſound without great Pain, nor can he bring his Hand to his Mouth, or ſtretch it upright againſt a Wall. If the head of the Shoulder be diſtorted forward, that part will

will appear prominent, with an unwonted Cavity behind, if you compare it ſtrictly with the other Shoulder: the Elbow alſo hangeth backwards, and will not endure to be brought forwards.

If the Luxation be made by a Relaxation of the Tendons, the Patient's complaint will inform you, and the Emaciation of the Arm will make the foreſaid Symptoms more apparent.

Prognoſtick. A Luxation of the *Os humeri* from an external Cauſe is not very hard to reduce in Children or ſoft Bodies, if timely undertaken: but contrary in elderly people and tough muſculous Bodies: and ſuch are frequently ſlow in recovery of their former ſtrength and motion. Sometimes a *Paralyſis* ſeizeth them, and they emaciate: but by timely Endeavours they do recover. If in the Reduction or otherwiſe any part of the *Cupula* chance to be fractured, the retention of the *Os humeri* is not an eaſie task. Luxations made by Fluxion may be eaſily reduced, but are moſt difficultly retained in the *Capſula*.

Reduction by the Hand. The Repoſition of the Luxated Shoulder is performed either by the Hand, Bandage, or force of Inſtruments. He that will reduce it by Hand muſt put it in a motion contrary to that it went out by. In its going out, it is firſt thruſt or pulled forwards, till it come beyond the edges of the *Cupula*; then it falleth down below the *Cupula*, and is by the Muſcles pulled backward. He that will reduce the Bone this firſt way muſt reverſe theſe motions; *viz.* firſt bring it forward, then upward, then thruſt it in. By the obſerving this method I have reduced the Shoulders of Infants and little Children ſo ſoon, that the Standers by have heard them knap in before they knew they were out. But the way of reducing the Shoulder in thoſe of more growth muſt be, if done by one man alone, by placing the Patient in a low Seat, and clapping his Fingers under his Arm-pit, his Knee or Thighs to the out-ſide of his Elbow, and his Head to the point of his Shoulder. By his Fingers ſtrongly bent together, he pulleth the Bone both forward and upward. By his Thigh or Knee preſſing his Elbow to his Side, he doth likewiſe help to raiſe it and bring it forward. The preſſure of his Head keepeth down the *Scapula*, that it may not riſe with the Bone. But becauſe this application of the Knee, Head, *&c.* is not eaſily practicable but upon little and ſlender men, we generally commit the preſſing of the Elbow toward the Ribs to another man.

After this manner the Elbow is brought quite back to the Spine: which being done his other Hand muſt be placed under the *Axilla*, to raiſe the head of the *humerus* forward and upward, whilſt the Chirurgeon with his hands preſſeth down the *Scapula* to receive the Bone.

When the head of the *Os humeri* lieth diſtorted forwards under part of the Pectorall Muſcle, the Patient's Elbow muſt be drawn backward, and held cloſe to the Spine, whilſt the Chirurgeon preſſeth with both his Hands forcibly upon the head of the Bone.

There is yet another way of reſtoring the luxated Shoulder by the Hand thus: You are to make choice of a proper luſty Fellow on whoſe ſhoulder you muſt hang the Patient by the luxated Arm, bringing his Hand over to the Fellow's Breaſt. If the weight of the Patient be not ſufficient to make the Extenſion, ſome other body may hang upon him, or pull him by the Legs downward.

Reduction by Bandage. But becauſe theſe ways of Reduction by the Hand are not always fecible, eſpecially in ſtrong muſcular people, we therefore make uſe of Bandage and ſeveral ſorts of Engins. The moſt common way of Bandage is by that of the Girt, which Girt hath a Boulſter in the middle, and the ends are tackt firmly together. In the uſe of it the Patient muſt be placed ſo, that part

of

of the Girt with the Boulſter is to be placed under the Arm-pit, and the other part over the Chirurgeons Neck, that he may thereby with all his force raiſe up the head of the *Humerus*: which that he may the better doe, his Aſſiſtent muſt ſit behind the Patient, and pull his Arm backward with all his might; and if the Chirurgeon preſſeth with his Hands upon the head of the *Scapula* at the ſame time he raiſeth up the *Humerus*, he ſhall reduce it more eaſily.

There is another way of Reduction by Bandage, and that is, by laying the Patient flat on his Back on the ground, the Chirurgeon ſitting behind him, and making Extenſion by the foreſaid Girt or other Bandage placed under the *Axilla*, whilſt his Aſſiſtent lieth along at the Patient's Side, and preſſeth with his Heel upon the foreſaid Bandage, and at the ſame inſtant taketh the Patient by the Hand, and pulleth his Arm with all his force. Thus by their ſeveral Extenſions the head of the Shoulder-bone may be raiſed and reduced.

Reduction by inſtruments.

Inſtruments proper for the reduction of the luxated Shoulder are, Ladder, Coulſtaff, Pulleys, *Gloſſocomium*, &c.

The way of Extenſion by a Ladder is, that the Patient climbe up three or four Steps of it, and put his lame Arm over one of the Staves, placing it between his Side and the head of the *Humerus*; and that a ſtrong Fellow take hold of that Arm, and pull it forcibly down backward, whilſt the Patient hangeth by it.

The way by a Coulſtaffe is ſafer. The Staffe muſt have a Bunch in the middle ſomewhat Wedge-like, and covered with a ſoft Boulſter fit to place under the Patient's Arm-pit. In order to the Extenſion, the Patient muſt be ſeated near ſome Poſt or Pillar, in which the Pully muſt be faſtened to extend his Arm; and the Bandage muſt be made a little above the Elbow: which being faſtned, and the Coulſtaffe placed, and ſupported by a couple of Fellows, the Chirurgeon muſt ſtand on the contrary ſide, with his Hands on each ſide of the *Scapula*, to preſs it downward, and keep the Patient firm in his Seat, and govern the Operation, taking care that the Wedge be placed right whilſt the Extenſion is making, leſt they break the Bone or otherwiſe miſchief him.

The *Gloſſocomium*, commonly called the Commander, is of uſe in the moſt ſtrong tough Bodies, and where the Luxation hath been of long continuance, and will not yield to the other ways of Extenſion. There ought to be great care in the uſe of it, for many ſhrewd Accidents have happend thereby.

The *Humerus* luxated by Relaxation of the Ligaments and Tendons is reſtored to its place after ſome of the ways aboveſaid, but doth require your induſtry to retain it after it is reduced: more of which by and by.

1. Obſervat. of a luxated Shoulder.

A Lady going one evening out of her Coach into her houſe, trode upon her Gown, and fell down. I being fetcht, found her ſitting in the ſame room grievouſly complaining of her right Shoulder. Looking upon it, and feeling the head of the *Humerus* lying in her Arm-pit, I endeavoured to reduce it by Circumrotation: but it not yielding thereto, I cauſed one of her Servants to pull her Elbow back towards the Spine, then to thruſt it forward. During which I ſtood on the contrary ſide, with one of my Hands upon the head of the *Scapula*, and the other under the *Os humeri*; and at the ſame inſtant my Aſſiſtent thruſt it forward. I forced it into its place: the people ſtanding by heard it knap in, and the Patient declared it by the eaſe ſhe felt. Then I applied an *empl. è bolo* round the weak Joint, with a proportionable Compreſs wrung out of *Oxycrate*, and rowled it on. After which

which her Servants led her to her Chamber to bed. The next morning I visited her. She had rested well, and was so easie, that her Physician, Sir *William Gideon*, would scarce believe that the Bone had been luxated. The Lady prepared to remove to her Country-house, and undertook the Cure her self by some Plaisters of her own. But during the application of them her Arm grew weaker, and emaciated very much, and was painful about the insertion of the Muscle *Deltoïdes*, and so to her Hand, with a nummedness in some of her Fingers. Whereupon she returned back, and consulted Physicians. One whereof, supposing the Bone still dislocated, advised the consulting a Bone-setter. I being present, he acknowledged the Bone well set. What he would have said had I been absent, may easily be guessed by his former dealing with others of my Profession. From that time Antiparalyticks were prescribed, a Fontanel was made in that Arm near the Muscle *Deltoïdes*, also Embrocations and Plaisters were externally applied; whereby she recovered the use of her Arm.

2. Observat. of Reduction by the Foot.

A Nobleman who was a Commander of Horse in that Army which came out of *Scotland* into *England*, was by some accident thrown off his Horse, and would not be raised off the ground till I came. He complained of his right Shoulder. I looking upon it, felt the head of the *Humerus* lie distorted in his Arm-pit. I endeavoured to reduce it by my Hands, as above in the former Observation: but it not yielding thereto, I caused Mr. *James Davies*, who was Chirurgeon to those Guards, to pull off his Boot from his right Leg, and to lie along upon the ground by his Lordship, to make Extension that way. Whilst he was making ready, I clapt a Compress under the Patient's Arm-pit, with a Towel over it, and placed my self at his Lordship's Shoulder, and made Extension by the Towel, whilst my Assistent took the Patient by the Hand, and thrust his Heel into his Armpit with all his might. We having thus reduced the Bone into its place, I applied an *emplastrum è bolo* over the Shoulder, and a Compress of Tow prest out of *acetum* under the Arm-pit, and rowled them on. That done, his Servants made him ready, and helpt him upon his Horse. I made him a visit that night at his Quarters, designing to let him blood in the contrary Arm: but his Shoulder being easy, and not hurt in any other part, I took my leave of him, telling him his Shoulder ought not to be dressed till after six or seven days. But this person forgetting what I had said, thought himself neglected, and complained to his superiour Officers of me. Whereas in truth, if the Bone be well set and bound up, it is not material whether it be any more dressed or no. Thus in an Army we are frequently rewarded, if we do not attend them as their menial Servants.

3. Observat. of Reduction by the Hand.

One morning Mr. *Faucett*, Chirurgeon to his Royal Highness, sent to my house, when I lived in the *Old-Baily*, to come to him into *Black-friers*, to help him to reduce a luxated Shoulder of a man lodged there. The head of the *Humerus* was fallen down into his Armpit. The way of Reduction proposed by Mr. *Faucett* was by a Girt. We placed the man on the ground, and that part with the Boulster under the man's Arm-pit, and put the Girt about Mr. *Faucett*'s Neck, who stood over him with his Hands upon the *Scapula*; and whilst I drew the Patient's Elbow backward close to his Spine, and thrust the head of the *Humerus* upward, Mr. *Faucett* raised up the head of the Bone with all his force, and it knapt in. The Bone being thus reduced, Mr. *Faucett* slipt the Girt off his Neck, and dressed up the man's Shoulder with Astringents and Bandage as hath been said.

4 Observat. of Reduction by the Coul-staff.

In the year 1657. whilst I was riding to a Noble Family in the North, I was desired upon the Road to make a visit to a man who had some days

before put his Shoulder out of joint. I did ſo, and ſaw his Arm miſerably ſtript of its *Cuticula* by the Bandage which the ſeveral Bone-ſetters had endeavoured to make the Extenſion by; yet the Bone lay lodged in his Arm-pit. I applied over the Arm *cerat. Galeni*, and gave direction to have a Coulſtaff made ready againſt next morning, with a Wedge-like prominence in themiddle of it, covered with ſoft Cloaths; and that the Bone-ſetters ſhould meet me at the Patient's houſe. The next morning we met, and having all things ready, I cauſed the Patient to be ſeated with his luxated Arm near a ſtrong Pillar, which ſupported part of a Mantle-tree; then took off the Dreſſings, and fomented and embrocated his Shoulder with Emollients; then folded a Cloath about his Arm a little above his Elbow, and faſtned a Bed-cord over that, and tied the ends of it about the Pillar, and with a Bed-ſtaff twiſted it,ſhewing one of the company how to twiſt it, and make Extenſion of the Arm by it. Then I placed the Coulſtaff with its Wedge cloſe under the prolapſed head of the *Humerus*, two ſtrong men the while ſupporting the ends of the Staff proportionably high, I ſtanding on the contrary ſide with my hands on the *Scapula* to draw it back, and preſs it downward to receive the head of the *Humerus*, and to govern the Operation, the Bone-ſetters looking on. All things being thus ready, the one twiſted the Cord, and thereby extended the Arm; the other held the Coulſtaff firm and cloſe to his Side. During the Extenſion our Patient roared, and one Bone-ſetter called to me to forbear the Extenſion, ſaying, *Why will you ſtrive againſt the Lord?* and turned from us, declaring that I would kill the man. But the head of the *Humerus* was then moving; upon which conſideration I bid the man twiſt on: and at that inſtant the Bone knapt in, and we looſened the Bandage; then dreſſed it up with *empl. è bolo* with Bandage, and put him to Bed. There being little more required, I went on my journey.

5. Obſervat. of Reduction by a Pulley and Coulſtaff.

In the year of the great Sickneſs, whilſt I was in the North-country, a Gentleman ſent his Servant to me, who had ſome half a year before luxated his right Shoulder. He had been with a Bone-ſetter, who took ſome pains in ſtretching it, and made him believe he had ſet it: but upon ſight of it, I concluded it luxated, and felt the head of the *Humerus* lying in his Arm-pit. I being then lame of my fractured Leg, and indiſpoſed with coughing blood, adviſed the man to return to his Bone-ſetter, and tell him what I had ſaid. He did ſo, and travelled from one Bone-ſetter to another. Every one of them attempted the Reduction, and pretended they had ſet it. But the Patient returning ſtill to me with it unſet, I ſent for a Pulley, and cauſing it to be fixed to a ſtrong Poſt, and a Coulſtaff to be held under his Arm-pit by two ſtrong people, we made Extenſion of the Arm, and reduced the Shoulder, as in the former Obſervation hath been ſhewed, without much difficulty. Then I dreſſed it up with a reſtrictive Emplaſter and Bandage as above ſaid, and he recovered the uſe of his Arm.

6. Obſervat. of Reduction by *Gloſſocomium.*

The deceaſed Mr. *Edward Molins* and my ſelf were ſent for to a Fencer who had put his Shoulder out of joint. We endeavoured to reduce it by the help of the Girt and our Hands: but he being of a ſtrong muſcular Body, we could not move it. We therefore embrocated the Shoulder *cum oleo ex ped. bovinis*, and dreſſed it up with *cerat. dialthææ.* The next day we came prepared with a *Gloſſocomium*, well known to the young Chirurgeons by the name of a Commander, and reduced the luxated Bone; then dreſſed up his Shoulder as above ſaid. This foreſaid Inſtrument is frequently uſed in reducing theſe Bones in ſtrong tough Bodies, and where the Luxation hath been of long continuance: but the uſe thereof requireth great caution, for ſometimes ſad Accidents have happened thereby.

Luxations

Luxations from internal causes are for the most part irremediable: yet I shall give you a couple of Instances of my attempts therein.

7. Observat. of Luxation by Congestion.

A young Woman having been long diseased with a Pain in her right Shoulder, with an Emaciation of that Arm, came to me recommended by Doctour *Chamberlain* Sen. Her Shoulder seemed to me luxated; but her Chirurgeon not being of that opinion, I declined the meddling with her: yet being afterwards solicited by some of her Friends, I sent her to a Chirurgeon's house, who was one of the Masters of Anatomy, whither I followed, and met several Masters of that Faculty there at a private Dissection. They together viewed and felt her Shoulder, and unanimously concluding it luxated, prepared for the Reduction of it; and having reduced it by Pulley and Coulstaff, dressed it up accordingly. But the Ligaments and Tendons were so relaxed, that afterward upon slackning the Bandage it relapsed.

8. Observat. of Luxation by Congestion.

A Child of about four years of age having had his left Shoulder luxated from his infancy, the Arm emaciated and grown useless, I being at last consulted did presently reduce it by lifting up the head of the *Humerus* with my Fingers: but the Tendons being extreamly relaxed, the Bone slipt down again as soon as I removed my Fingers. Wherefore I sent for Mr. *Smith* a Truss-maker, and appointed him to fit the Child with a pair of Bodies stiffened on the lame side, wherein was fixt a Bar of Steel with a head like a Souldier's Rest, which by a Screw was raised proportionably to support the head of the *Humerus*. This being made, I placed a Fontanel in that Arm, and rowled up the other Arm from the Hand to the Shoulder, and braced it to his Breast, designing thereby to force Nourishment into the lame Arm, and necessitate him to use it. But the Child growing froward, they set it again at liberty. Upon notice thereof I deferred farther proceeding in the Cure, till the Child should be more governable; advising the Parents to repeat the use of the former Prescriptions of their Physicians as they should see occasion.

Chap. VI.

Of Luxation of the Elbow-joint.

Description of the Elbow-joint.

THE Joint of the Elbow is made by the concurrence of three several Bones: 1. the *Os humeri*, 2. the *Ulna*, 3. the *Radius*. The *Os humeri* endeth broad towards the Cubit with a double head, the inward fitted for the reception of the *Ulna*, the outward for the *Radius*. The inward head is exactly shaped, and covered with a Gristle, which rendreth it smooth, and fit for the motions of the *Ulna*, which with a sutable Cavity plaieth about it, inserting upon every extension of the Arm its utmost Process (called the *Olecranon* or *Ancon*) in the large Cavity that is situate on the back-side of the *Humerus*. In every Flexure its lesser Protuberance plaieth into a lesser Cavity in the exteriour part of the said *Humerus*. The *Radius* meanwhile, being

round and flat, with a very ſmall Excavation doth play upon the outer head. Theſe Heads have yet a farther uſe; *viz.* by their reſpective Proceſſes to make a ſtation for ſeveral Muſcles: the outer Protuberance giving original to all the Extenſors of the Hand and Fingers; the innermoſt to all the Flexors of the ſame. The Joint it ſelf, beſides the Ginglymoïde connexion of the *Ulna* to the *Humerus*, is tied faſt by a ſtrong Ligament, and well bound in with Muſcles. *Viz.* on the inſide it is lined with the ſtrong and thick, but very ſoft, end of the *Brachiæus internus*, whoſe Ligament, though hard and thick enough, yet hath a ſoft Pillow of Fleſh interpoſed between it and the Joint, that ſo the preſſure may not hinder the motion thereof, but rather give way to it. Yet is the preſſure ſtrong enough to keep the place firm, which the acceſſion of the Tendon of the *Biceps* doth much more corroborate; ſo do the *Pronator radii teres* and *Supinator longus*, &c. The outer part is well guarded by that great ſtrong Muſcle which uſually is reckoned for two, *viz.* the *Biceps*, and *Brachiæus externus*, which uniting together have a fleſhy ſoft inſide, but with a ſtrong broad Ligament fixt on the outſide to the *Olecranon*. There is alſo a little Muſcle called *Anconeus*, which reaching from the end of the *Humerus* obliquely tranſverſe doth inſert it ſelf into the *Ulna*, corroborating the Joint.

The *Radius* alſo is bound cloſe to the ſide of the *Ulna* and to the *Humerus* by two remarkable Ligaments; *viz.* the circular one that involveth the Joint, and the broad one that uniteth it and the *Ulna* together: it is alſo bound down by the neighbouring Muſcles, eſpecially the two *Supinators* and the *Pronator teres*.

He that conſidereth the figure of the *Ulna*, and the ſtrength whereby it is tied to the *Humerus*, will think the Luxation of it almoſt impoſſible: Yet even this alſo is ſometimes made by the force that may be put upon it, and that four ſeveral ways, if we may believe Authours; as outwardly, inwardly, and to each ſide.

Signs of the Elbow luxated. If the Luxation be forward, the Arm hangeth ſtraight out, or rather outward, and he cannot bend it; a Prominence appeareth in the Bout or inſide of it, and an unwonted Cavity where the Elbow ſhould be. But if the Luxation be backward, the Cavity will be in the fore-part, and the Arm curved. If the Luxation be on the inſide, the Cavity will be on the outſide; and ſo the contrary, if it be externally diſtorted.

Prognoſtick. The perfect Luxations of this Joint do rarely happen. When they do, they are difficultly reſtored: and if there be a Fracture of any of the Proceſſes of the Joint, the caſe is deplorable.

Cure. If the Cubit be luxated forwards, the Arm muſt be extended, but not in a ſtraight line, leſt you break the tip of the *Ulna*, but obliquely. To which end, two perſons being employed, one to hold the *Humerus*, the other to pull the Arm below, a third perſon muſt guide the Elbow ſo as to keep it bent, and to direct the Bone. Which is done by preſſing a Boulſter upon the bend of the Joint, or by a Girt or other Bandage pulled behind, or by one in the nature of a Stirrup, in which the Chirurgeon may put his foot, and make Extenſion that way.

If the Luxation be backwards, the Extenſion being made obliquely as before, the Repoſition is eaſily guided by the Chirurgeon's Hand. Yet ſince the extending Muſcles of the Cubit are very ſtrong, it will be neceſſary that the Muſcles ſerving the Cubit be firſt well embrocated with lenient Ointments: But if notwithſtanding you cannot reduce it by Hand, the Ladder or other Engines muſt be uſed. And after Reduction apply Reſtrictives, *&c.* for theſe Luxations are ſubject to great Fluxion, Inflammation, *&c.*

The

THE former of these Luxations happened to a Servant-maid in *Whitefriers* carrying a Pail of water. Her Feet slipping, she endeavoured to save her self; but falling backward, she pitcht upon her right Hand, and distorted the head of the Bone inward a great way. The poor creature was carried into the next house, being an Ale-house, and Mr. *Clarke* a neighbouring Chirurgeon and my self were fetched. Dressings being made ready, and the Wench seated, one of the company stood on the contrary side of her, with both his Hands upon that Arm below the Shoulder, and held her firm. Mr. *Clarke* made Extension below the Cubit, and my self with a boulstered Girt upon the prominent Bone in the Bout of the Arm pulled it backward. After we had thus come to the very brink of the Joint, Mr. *Clarke* bowing the Arm suddenly forward, I drew it back into the place; then embrocated it *cum ol. ros. myrtill. & aceto*, and applied *empl. è bolo* with Bandage, and left her Hand upon her Breast. But she was lame long after. 1. Observat. of a luxated Elbow.

If the Cubit slip out side-way, the Reduction may be made by Extension and impulse of the Hand.

That of the *Radius* is also reduced by the like means; so that examples need not be given: only in the other of a curved Wrist, I shall give one Instance.

A Lady being overthrown in her Coach, the lower Process of the *Ulna* called *Styloïdes* was distorted from the *Radius*, and one of the Bones of the *Carpus* shoved between. I made Extension of the Wrist, and prest that Bone of the *Carpus* to its fellows smooth, then thrust the Process of the *Ulna* close to the *Radius*, and applied round the luxated Joint an Emplaster of astringent Powders *cum album. ovi*, Splints, and Bandage, as in a fractured Bone, and placed it on her Breast, and thereby restored it to good use and its natural figure. 2. Observat.

Chap. VII.

Of Luxation of the Carpus, Metacarpus, *and Fingers.*

THE *Carpus* is composed of divers Bones. One lieth out of order. Three of them are joined to the Processes of the *Radius* and *Ulna*, four to the *Metacarpus*, and all of them bound in by a strong Ligament, by the strength of which the Joint is made more firm. Yet these Bones may be all thrust out together, or any one of them single, inwardly, outwardly, also towards either side.

This Luxation is discovered by the Tumour it maketh in the place where it lieth distorted; also by the Flexure or Extension of the Fingers. *Viz.* if the Bones be moved inward, the Flexors of those Fingers are so stretcht, that the Extensors cannot stir them: and so contrary, if the Bones start outward, the Signs of the *Carpus* luxated.

the Extenſors are immovable: and if they be luxated ſideways, the Hand leans either to the Thumb or little Finger.

Reduction. The way of Reduction is, to lay the Hand and that part of the Arm flat upon a Table, and make Extenſion above and below: during which the Chirurgeon preſſeth down the prominent Bones with his Hands into their ſeveral Cavities. The Bones reduced, remove the Hand, and place it upon a *Ferula*, and dreſs it up with Reſtrictives, Compreſs and Bandgage.

Luxated Fingers. The Fingers may be luxated backward, forward, or on either ſide. The ſingle Luxation of the ſeveral Bones may be demonſtrated by their Protuberance, and by the complaint of the Patient. They may be eaſily reduced by Extenſion, they having no Proceſs to hinder: and being reduced, the common Reſtrictive and Bandage will retain them ſo.

Chap. VIII.

Of Luxation of the Hip.

Deſcription of the Hip. THE Joint of the Hip is a Connexion of the head of the *Os femoris* to the *Acetabulum* of the *Os iſchion*, which is done by two ſtrong Ligaments: one outward and membranous, encompaſſing the whole head of the *Femur*, from the edges of the *Acetabulum* to the farther end of the neck, where it toucheth the great Trochanter: the other inward, of a round figure, like a Cord tying the utmoſt *apex* of the *Caput femoris* to the inner ſide of the *Acetabulum* near the center. This Articulation is confirmed and ſtrengthened by great ſtrong Muſcles; *viz.* on the outſide by the three *Glutes*, on the inſide by the *Triceps* together with the *Levidus*, and the four little Rotators. All which being duly conſidered, it muſt needs follow, that the force muſt be great that doth drive this out of its place. Yet when the weight of the Body and the undue poſition of the Thigh do concur, they frequently make that Luxation: ſo likewiſe doth ſometime external force.

It is remarkable, that this place admitteth not of a Semi-luxation as others do; the head being ſo round, and the Cavity ſo glib, and deep, that whatever the force be, if the head be not thruſt quite out, it will ſlip in again as ſoon as the force ceaſeth. It doth ſlip out four ſeveral ways, outwardly, inwardly, forward, and backward. Yet theſe two latter I never ſaw; but by Congeſtion the Ligaments and Tendons may be ſo relaxed, that it may fall out either way.

Signs of a Hip luxated. If the Luxation be inward, the head of the *Femur* may be felt round and hard a little beneath the Groin. But if the Patient be in bed, you may judge of it by turning up the cloaths at the bed's feet; the Leg will appear longer than the other, and the Knee and Foot lie turned outward. If the Luxation be outward, that Leg will be much ſhorter than the ſound one, and the Toes turned inward.

In

In a relaxation of the Hip, the Leg hangs for the moſt part directly down and looſe, is weak, turneth either way, and is much emaciated.

Luxations of the Hip are difficultly reduced, and being ſo, are extreme apt to prolapſe, by reaſon of the over-great Extenſion or Ruption of the internal Ligament, which ſhould hold the Bone in its *Acetabulum*. And if it be not reduced, it will be ſubject to great Pain and Fluxion from the over-ſtretching of the Muſcles, and preſſure upon them with its great head: yet after ſome months thoſe Muſcles become callous, and having yielded to the Extenſion, the Patient makes a ſhift to go upon it, though lamely. But the Member ſuffereth an *Atrophia*, and is ſhorter than the other. Prognoſtick.

When the Luxation happeneth by Congeſtion, it is ſubject to Apoſtemations, and the head of the Bone corrupts by lying ſlabb'd in the Humour, and the Patient languiſhes and dies emaciated.

If the Thigh-bone be luxated inward, and the Patient young and of a tender Conſtitution, it may be reduced by the Hand of the Chirurgeon: *viz.* he muſt lay one Hand upon the Thigh, and the other upon the Patient's Leg; and having ſomewhat extended it towards the ſound Leg, he muſt ſuddenly force the Knee up towards the Belly, and preſs back the head of the *Femur* into its *Acetabulum*, and it will knap in. For there is no need of ſo great Extenſion in this kind of Luxation; for the moſt conſiderable Muſcles being upon the ſtretch, the bowing of the Knee as afore ſaid reduceth it. Yet in tough Bodies it may require ſtronger Extenſion: and in that caſe the Patient muſt be laid upon a Table flat on his Back; and a Pin of a good thickneſs ought to be fixt in the middle of the Table, to ſtand up between his Legs cloſe to that *Inguen*, that the Extenſion may be made thereby. During which the Extenſion muſt be made by two men, the one pulling him by that Arm-pit, the other by the Leg: which latter Extenſion muſt be made obliquely towards the ſound Leg. Reduction of the *Os femoris*.

If the Luxation be backward, he muſt be then laid upon his Belly, and the Pin placed as aforeſaid in his Twiſt: it ought to be as thick as a Rowling-pin, and covered with Cotton, that its hardneſs may not be offenſive. The Extenſion may alſo be made upward by a Towel or Girt between his Thighs: and the while that Leg muſt be ſtretcht by Pulleys or ſuch like ſtrength, and the Bandage faſtened above the Knee.

The Bone once reduced, dreſs it up with Reſtrictives and good Compreſs and Bandage, then bind it to the other Leg, and keep him in bed: for theſe Bones are apt to ſtart, eſpecially if the *Ligamentum teres* be broken. If after Reduction and ſuch Regulation the Bone do ſtart again, I ſhould forbear any farther forcing it, to avoid the danger of Apoſtemation, *&c.* For, as I have ſaid, they may recover ſtrength to go on it, though it be never reduced.

A Luxation made by Relaxation or Reſolution requireth good drying and corroborating Fomentations, Emplaſters, Epiſpaſticks, Fontanels, *&c.* The Habit of body ought alſo to be treated by Internalls as in the *King's Evill*; and if it apoſtemate, to be dreſſed as ſuch Abſceſſes.

CHAP.

Chap. IX.

Of Luxation of the Knee.

Deſcription of the Knee-joynt.

THE Joynt of the Knee is made by the connexion of the lower head of the *Femur* and the upper head of the *Tibia* and the *Patella*. The firſt of theſe by a double Protuberance is inſerted into the double Cavity of the latter, and ſuffers conſtriction on the anteriour part from the great and large Muſcles, which running to and beyond the *Patella*, join that to the *Os tibiæ*, and bind it down upon the Articulation, ſo as of the whole to make a Joint. On the hinder ſide it is guarded with the two Hamſtrings ſo called, *viz.* the Tendon of the *Biceps* outwardly, and of the *ſartorius*, *gracilis*, *ſemimembranoſus* & *ſeminervoſus* inwardly: between which, through a little Cavity made for that purpoſe, all the great Veſſels have their paſſage to the Legs. Now the Joint being thus ſtrengthned doth ſcarce admit of any Luxation forward, unleſs the cauſe be exceeding violent. Backward and on each ſide it is ſubject to both Luxation and Semiluxation.

Signs of a luxated Knee. Reduction.

The *Signs* of the ſeveral Luxations of the Knee are apparent to the eye, by the Protuberance in the one part, and Cavity on the contrary.

They are not difficult to reduce, nor ſubject to ſuch Accidents as thoſe of the Elbow.

Thoſe Luxations which happen on either ſide of the Knee may be reduced by a moderate Extenſion with your Hands. The Luxation backward is reſtored by extending it a little: then bend the Leg ſuddenly backward, bringing his Heel to his Buttock, and you ſhall hear it knap in to its place. It being ſo, ſtretch it out again, and embrocate the Joints and Parts affected, and apply Aſtringents with a Compreſs in the Ham, with good Bandage. I ſhall ſhew you the manner of reducing the perfect Luxation more particularly as followeth.

Obſervation of a luxated Knee.

A Gentleman of about 30 years of age, riding upon the Road ſome few miles out of Town, was by the ruſhing of a Cart tumbled with his horſe into a Ditch, and brought back to *London* extremely lame and bruiſed. I being fetcht to him found him in bed. The head of the *Os tibiæ* was ſhot under the Thigh-bone, and lay ſtretcht out ſtraight, exceedingly ſwelled, and much blood extravaſated amongſt the Muſcles of the Calf of his leg. I cauſed the Patient to be laid on the contrary ſide: then one of the company held him down, and kept that Thigh ſteady, whilſt I took him by the Foot and Calf of his Leg: and after I had a little drawn it to me, I forced it backward towards his Buttock, by which very motion it knapt into its place. That done, I extended it again, placing the while my Hand in the Hollow of his Knee. The motion of that Joint to and fro, and the filling up that Cavity under the *Rotula*, were certain ſigns of its Reduction. I embrocated the Leg *cum albumine ov. ol. roſ. myrtill. & aceto*, and applied *empl. è bolo* over all, with a Compreſs in his Ham, then rowled it up, and laid his Leg upon a Pillow to the eaſe of the Patient. That done, I let him blood in his Arm,

Arm, prescribed him an Emulsion of the cold Seeds, *&c.* and kept his Body soluble by Clysters, and advised him a slender Diet. The third day I repeated Embrocations with the foresaid Oils *cum aceto*, and thereby repelled the Humour so, that there only remained some remarques of the extravasated blood. I then embrocated those Parts *cum ol. cham. lumbric. spir. vini*, and applied *empl. stict. Paracels. & diapalmæ* on the weak Joint. From the first application he grew daily easier, and by these latter the Joint waxed strong, and he rose and walkt with a Crutch in his Chamber: and some time afterwards I saw him walking abroad with a Stick in his hand.

Chap. X.

Of Luxation of the Ancle-bones.

THE lower end of the *Tibia* being joyned to the *Fibula* maketh a ginglymoide Cavity in which the *Os tali* is inserted: the two Ancles being on the inside the Product of *Os tibiæ*, make the outer on the *Fibula*. Underneath lie all the *Ossa tarsi* in order; *viz.* the *Os calcis* under the *Talus*, the *Os cymbiforme* before it. Outward of that, joyning to the *Os calcis*, is the *Os cubiforme*; and between the *Os cymbiforme* and the *Metatarsus* lie the three *Ossa cuneiformia*. Description of the Ancle-bones.

This Joint is involved in strong Membranes and Ligaments, and bound in by divers strong Tendons: *viz.* behind by the Tendon of the *Gastrocnemius*, and yet close underneath in the Hollow of the *Calcaneum* by the *Flexores pollicis & tertii internodii digitorum lateralis*; inward by the *tibialis posticus*; outward by the *preconei*; forward by the *tibialis anticus*. These joyned to the strong Ligaments that every-where bind up the Part, and assisted by the figure of the Bones, do make a Joint that would not easily be dislocated, did not so great a weight lie thereupon. But from great weight and force it sufferreth four ways.

If the luxated Bone be distorted inward, the Sole of the foot lieth turned outward; so likewise if the Luxation be in the exteriour part. If the Luxation be forward, the broad tendon of the Heel lieth hard and stretcht out, and the Foot appeareth shorter, because the Joint is moved forward, and possesseth most part of the Foot. But if the luxated Bone be distorted backward, it lieth over the Heel-bone, in which case the Sole of the foot seemeth bigger and longer. Accordingly as these Signs are evident, the Luxation is perfect or imperfect. Signs of a luxated Ancle.

The Reduction is not difficult; yet these Luxations are subject to great Pain, and are accompanied with Tumour and *Ecchymosis*, and the Patients are long lame of them. Prognostick.

The way of Reduction in tender Constitutions may be by Extension with your hands, the one taking hold of the Leg, the other of the Foot. During which Extension, the Chirurgeon must press the Bone the contrary way to which it was fallen. In case the Extension by your Hands suffice not, Reduction.

you may make uſe of Pulleys or other Engine. The Bone being redu ced, apply Reſtrictives with Bandage as above ſaid.

Sometimes the Ancle-bone is apt to turn out on either ſide, by reaſon of Relaxation of the Tendons: in which caſe, though you do reduce it, yet upon the leaſt walking on it the Bone ſlips out again. Some years ago ſuch a one was brought to me; I reduced it eaſily, and it as ſoon ſlipt out again: whereupon I cauſed a Shoe to be made by which the Ancle was kept ſteady, and at length by application of Aſtringents, *&c.* it recovered ſtrength.

The Bones of the *Metatarſus* and Toes are frequently fractured, but rarely luxated, by reaſon of their ſtrong Ligation by ſo many Tendons. But if it ſo happen, their Cure is the ſame with that of the Fingers and Hand.

Chap. XI.

Of Luxation of the Spine.

Luxations of the Spine, which are moſt uſually from inward Cauſes, as in Rickety Children, alſo in the *King's Evil*, and other Tumours happening upon thoſe Bones, require internal Remedies, ſo are referrable to a Phyſician. The Chirurgical part conſiſteth in the application of Plaiſters, as hath been ſhewed in the Treatiſe of the *King's Evil*, alſo in good Bandage, which chiefly belongs to the Bodies-maker.

When it happeneth from force, a ſpeedy Repoſition is required, about which *Galen*, *Hippocrates*, *Oribaſius*, *Celſus*, &c. ſpeak much, who all may be conſulted. The caſe is ſo rare, that I think it not needful to add any Diſcourſe here; much leſs that of *Hildanus*, about reducing the Spine when luxated inwardly. He that pleaſeth may look into the Author.

OF

OF
LUES
VENEREA.

OF

LILES

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OF
Lues Venerea.

The Eighth Book.

CHAP. I.

Of Lues Venerea.

LUes Venerea *is a venomous contagious Diſeaſe gotten either Immediately or Mediately from an impure Coition.* Definition.

I ſay *Immediately* or *Mediately*, becauſe it is very manifeſt, that not only the Perſons ſo copulating are infected, but alſo the Children derived from ſuch Parents, and Nurſes that ſuckle thoſe Children, and any other Child that ſucks upon thoſe Nurſes; and ſo forwards. It is frequent to mention other ſecundary ways of the propagation of it; as lying in the ſame Bed with an infected perſon, lying in the ſame Sheets after them, or wearing their Cloaths. Nay it is affirmed by ſome, that men have been infected by the ſame Cloaths they themſelves wore when they were diſeaſed. Drinking with one ſo diſeaſed, or ſitting on the Cloſe-ſtool after them, are likewiſe numbred amongſt the cauſes of infection. Ways of Infection.

Theſe are all ſuch convenient excuſes for the more ſhie and coy Patients who will not otherwiſe be brought to confeſs their diſtempers, that it is pity to diſcountenance them. Nor will I deny the differences of Conſtitutions to be ſo great, and ſome of them ſo liable to this Diſeaſe by ſome other previous indiſpoſition of body, that they may be infected with the tenth part of what another would eſcape ſound from. And this eſpecially I do acknowledge in Women, the ſoftneſs and tenderneſs of whoſe Sex being frequently attended with thin and ſharp *ſerum* in the blood, renders them liable to very quick impreſſions: yet in Men, and indeed in the generality of Patients, we find the Diſeaſe not ſo active as to conveigh it ſelf from one ſubject to another without actual coition, or ſomething very equivalent to it. And as to wearing of the ſame Cloaths, it is notorious that many hundreds cured by us Chirurgeons here in the Town, do commit that error (if it be one) without the leaſt inconvenience. Nay in ſound and firm conſtitutions impure coition it ſelf is not alway ſufficient to infect. Of which I have ſeen the frequent Experiment during the three years I ſerved in the King of *Spain*'s Navy, where our Mariners as ſoon as their pockets were full of money would be getting aſhore to the *Negroes*, and other common women, that uſually attended their Landing, and ſerved their pleaſures in the neighbouring Broom which grew very plentifully on ſome of thoſe ſhores. I have known, and dare ſay, more than twenty men lay

with

with one and the same woman the same day, and only some of them infected, the rest going free, though they all equally deserved it.

But Nurses may either infect Children or be infected by them. Children that have had no Ulcers in their Mouths or Lips, nor any other visible symptom of the *Lues*, have notwithstanding betrayed their own infection by transmitting it to the Niple of the Nurse. In which case it is frequent to see serpiginous Ulcers arise one after another, growing at length into so many round crusty Ulcers: also Nodes thrusting out of the back of the Hands, Shins, *&c.*

Infections of Children are more obscure, for though many of them after they be born have such Scabs and Ulcers as do sufficiently manifest the Disease, yet it is not always so: for generally they do often come into the world very clear, and with the appearance of very sound bodies, which notwithstanding have been certainly infected and have dyed of it, or at least have been very infirm; and though they were brought to their ends by some other apparent Disease, yet the Pox hath been judged the foundation of all.

I shall give you a three-handed instance that may confirm several parts of this Discourse.

A lusty young fellow brought me to see his Wife, which I did in the company of Dr. *Mapletoft*; we found upon her face a great cluster of round crusty Venereal Ulcers, yet not only her Husband was seemingly sound, but her Child also, who being half a year old appeared lusty and strong, played merrily in the Nurses Arms, but that day died suddenly: nor could I impute that accident to any other cause, but the forementioned infection.

Yet I would not have any man rash in judging all Ulcers to be Venereal that do resemble them, for I have seen Nurses with chapt Niples, and serpiginous Ulcers on the Breasts, and Maids likewise in the same condition, who have been cured without any respect to the *Lues*.

I have seen also many Infants broken out about the Lips, Face, Head and Body, with many suspicious *pustulæ* and Ulcers, that were born of chast Parents. In our publick healings we present many such; if there be any diseased glandules found about the *musculus mastoïdeus*, I supposing them rather to be strumous.

Its Nature. Having thus far treated of the *original* of the *Lues*, it will be now seasonable to describe the *Disease it self*. For the doing of which it will not be necessary to run through all the nice diversity of opinions which *Sennertus* and other Authors have reckoned up; such an attempt would better become a Chair in the University than a Practical Treatise: I do only in short say, that it is a Disease produced not by excess of any of the four qualities, but by the actual communication of a downright venom, which usually affects that part of the body which it first toucheth, and afterwards the blood it self, by the vertue of which all the solid parts are by degrees tainted.

Its Degrees and Symptoms. The *Species* or rather *Degrees* of this Disease have by *Palmarius* been reckoned four according to the degrees of Infection. In the first he supposeth only the Hair to fall off without any other hurt of the body; a case, I doubt, very rare. In the second the Skin groweth rough and spotted with many little protuberances. In the third down-right Scabs appear in the Head, Face, *&c.* In the fourth the solid parts are infected, as the Bones, *&c.* But these degrees are either ill ordered, or at least not justed to the appearance of the Diseases that occur in this age. Therefore I shall endeavour to rank the Degrees or Symptoms of it according to the events which we usually observe in our practice.

Therefore when a Man hath had to do with an Impure Woman, either he hath some heat or inflammation on the *Penis* with excoriation, which ariseth

eth ſoon after coition, and is cauſed by the affriction of a virulent humour, or elſe he finds a heat in his Urine, and in a day, two or three, a *Gonorrhœa*, or iſſuing of virulent matter out of the ſeminal Veſſels through the *Urethra*, This inflammation is very apt to produce excoriation and ulceration, upon which chancrous Ulcers ariſe; and ſometime when the Infection hath been vehement, or the Inflammation neglected, it tends to a Gangreen, and Cryſtalline Bladders ariſe, and the part mortifieth.

Sometimes a *Gonorrhœa* ſucceeds not; only the infection taking rather along the Cutis to the Groin, doth make impreſſion on the neighbouring Glandules, and produce a Bubo, which according to the degree of its malignancy either proves eaſily curable, or elſe improves in its venom, and terminates in a Phagedænous Ulcer with jagged lips. At this time of the Diſeaſe I have ſeen many round, hard, venereal Ulcers upon the *Scrotum* and *Perinæum*. Sometimes where none of the other ſymptoms have preceeded, a ſmall chancrous Ulcer ariſeth between the Prepuce and the *glans*, above or below, on one ſide, or in the entrance of the *Urethra*; one while eating through it, otherwhile deſtroying the *frænum*, *&c.* Theſe Ulcers are ſometimes only corroſive, and ſometimes callous, or a calloſity without an Ulcer.

The attendance of a Chancre is commonly a breaking out all over the body like a flea-biting, which terminates in various ſorts of Tetters or Ulcerous Scabs; or it may be that Puſtules ariſe in one or more places of the body, as Head, Face, Arms, Thighs or Legs, or Ulcers in the Tonſil, Palates, *&c.* and at the ſame time I have ſeen a Gummineſs upon the *muſculus maſtoïdeus*, drawing the neck on one ſide.

The wandring pains begin towards night to affect either the Shoulders, Arms, Legs, or Head; ſometimes this laſt is affected alone to great exceſs. And about this time *Verrucæ*, *Condylomata*, *Mariſca* or *Ficus* appear in the *Podex*; alſo *Ozæna* and Ulcers of the ſpongieſt part of the *Os ethmoïdes* and griſtles of the Noſe; alſo about this time Tumours by congeſtion ariſe in the Breaſt, Arms, Legs, and become Ulcers of difficult cure.

The pains growing more fixed, *Gummata* or Nodes uſually ariſe and continually afflict them, but towards night grow more intolerable, and at length the Bones corrupt.

Coincident with ſeveral of theſe latter degrees are the noiſe in the Ears, Deafneſs, a *Polypus*, *Ophthalmia*, *Fiſtula Lachrymalis*, fierce Catarrhs, Colicks, *Diarrhœa*, and *Tabes*.

Theſe dreadful Symptoms have frequently poſſeſt the imaginations of ſome people, who having taken the way to get the Pox are ſoon perſwaded that they have it. Theſe men will ſtrangely imagine all the pains and other ſymptoms they have read of, or have heard other men talk of. Many of theſe hypochondriack have come to Sir *Fran. Pr.* in which caſes he hath been pleaſed to ſend for me to conſider of their complaints with him. They commonly went away from us unſatisfied, nor could they quiet their minds till they found ſome undertaker that would comply with them; which done, they were never the better, the imagination in which the Diſeaſe was ſeated remaining ſtill uncured; whereupon preſuming they were not in hands skilful enough, they have gone to others, and ſo forwards, till they had ruined both their Bodies and Purſes.

There have been three of theſe people with me lately; one a Tradeſman, who told me that ſince his Wifes death he had fallen into ill company, and being heated with drink, ſtrayed and got a Clap, for which he had been under ſeveral hands; that it had coſt him 40 pounds amongſt them, but he was ſtill worſe and worſe. I asked him if he had ever a *Gonorrhœa*? Yea, ſaid he, with great pain in my Back, which ſtill continues: alſo ſuch a pain in my Noſe,

that

I fear it will fall. Upon more particular enquiry I found no such thing; only upon straining to make Urine or upon the Close-stool, he had an involuntary effusion of Seed, which was an old infirmity he had quite forgot. I endeavoured to satisfie him that he escaped better than he deserved. Whether he continued in the same opinion he seemed to have received from me of his condition I sometime doubted, but lately have seen him and been assured, that since he spake with me he had taken no Physick, nor felt any cause for it, he continuing very well.

Pfognostick. Authors upon the first entrance of the Pox into *Christendom* generally looked upon it as not only incurable, but also so highly infectious that they ran away from it as much as the *Jews* did from the Leprosie; but latter Ages and long experience have made it less formidable: yet even to this day it must needs be acknowledged difficult to cure, in consideration of its malign and contagious quality, and the ungovernable dispositon of the Patients.

If the habit of body be strong, the cure of all these Species of *Lues Venerea*, whether they be Chancre, *Pustulæ*, *Serpigo*, *Herpes miliaris exedens*, *Phagedæna*, *Ozæna*, Ulcers in the Palate or Tonsils, they are all much easier cured than the same are in any other chronick Disease: but to eradicate the *virus* that it doth not return with more malignity, is somewhat more difficult.

If the Patient hath been formerly clapt, it will be the more difficult to cure him the second time, and worse the third.

If he hath passed through long courses of Mercurial remedies ineffectually, his cure will be difficult; and if he hath been Salivated by Unction and relapsed, the Cure will be hard, by reason the Mercury is become familiar to him, and his body is for the most part emaciated and squalid.

Gummata and Nodes are more difficult of cure than the Species above-mentioned, and those whose Bones are corrupted are yet more difficult of cure: but if the habit of body be strong and the *Viscera* sound, all the species of this Disease are curable if the Patient keep his Chamber, and submit to the rules of Physick and Dyet, without which submission we can scarce cure the lesser Species; and accordingly as they have been slubber'd over, the malignity that remains will at one time or other show it self either in some Chronick Disease, as *Asthma*, Catarrh, Colick, *Diarrhœa*, *Stranguria*, *Rheumatismus*, *Hydrops*, *&c.* or in some species of the *Lues Venerea*, when possibly the Patient will not be so willing to acknowledge the Disease, and what hopes is there then of his Cure?

Also if the *Viscera* be unsound, or the Patient Hectick, a *Marasmus* will attend it, and the Cure is impossible.

CHAP.

Chap. II.

Of the Remedies generally used in the Cure.

THE Medicines alter according to the degrees of the Malady, and other circumstances, in which the following Discourses will inform you. My present business is to give a general view of them all, with their Natures and Uses. Now the known Remedies, all or some of which we used in this Cure, are *Bleeding*, *Purging*, *Vomiting*, *Salivating*, *Sweating*, *Cordials* and *Opiats*; to which we may add *Dietetical* directions, especially *Alterative Drinks*, and *Topicks*. Its Cure.

Concerning *Phlebotomy*, though it do not cure the Disease, yet in the very beginning of it we usually let Blood, to calm the fermenting Humours, and dispose them for Evacuation, and prescribe a Clyster before or after.

If the Disease be of long continuance, and they have been let Blood some months before, yet if we design Salivation, we do again *let* them *Blood*, if the Body be not too much emaciated. For in some of those a Feavor hath happened in the time of raising the Salivation: and in Bodies of stronger habits I have often seen them to break out in heat all over in the beginning of the Flux, so that then I have been necessitated to let them Blood when it was not so proper. When this Disease appeareth in the Groin with a *Bubo*, we do not let Blood; yet some have advised it in the Foot, as a way to lead the Humours thither. By Bleeding.

Purging is more universally necessary, few Cases being to be put in this Disease where it is not required. For whosoever is Infected, either is already Cacochymical, or will quickly be so, if by a suddain evacuation of the corrupted matter you do not prevent it. It is also useful in keeping the Blood low, which the higher it is, the more apt it is to be inflamed. Of Purges some are only *Lenitive*, fit for weak and extenuated Persons, also to dispose the Body for more strong Purges. The *Lenitives* are *Manna* with *Cremor Tartari* in Whey or Posset-drink, also the decoctions of *Tamarinds*, *Cassia*, with the infusions of *Sena*, *Rhubarb*, &c. *Syr. de pomis purg. de cichoreo cum Rhabarb. Elect. lenitivum*, *Diaprun. Diacatholicon*, &c. ℞ *Sarsaparillæ* ʒiij. *scobis Guaiaci* ʒj. *fol. beton.* M. *ſ. flor. Paralyseos* P. i. *Tragæ com.* ʒij. *fol. sennæ* ℥ſs. *coquant. lent. igne*; *colat. adde Rhei, agarici trochiscati seorsim in aq. cichorei infus. an* ʒjſs. *Colaturæ adde Syr. infus. Ros. pallidar.* ʒvj. *Mannæ* ℥j. *f. potio.* ℞ *fol. senæ mund.* ℥ſs. *Turbith gummosi*, *Jalap. hermodactyl. an.* ʒj. *Zinziberis*, *Cinnamomi an.* ℈j. *coq. in sufficienti quantit. decoct. sarsæ*, &c. *ad* ℥vj. *Colat. adde Syr. de spin. cervina* ʒjſs. *f. Potio.* ℞ *Elect. Diacatholici* ℥ſs. *diaprun. solut.* ʒij. *diasennæ* ʒj. *cum syr. de sp. cervina q. ſ. exhibeatur in cochleari.* These, besides their use where stronger cannot be given, are also preparatives for bleeding, and thence to *stronger* Physick, *viz.* such as followeth. ℞ *Fol. Sennæ* ℥iv. *Turbith gummosi*, *Hermodactyl. an* ℥ij. *Hellebori nigri*, *pulp. Colocynth. an.* ʒvj. *ras. Guaiaci*, *sassafr. an.* ℥j. *cort. Guaiaci*, *baccar. Juniperi recent. cort. exterior. citrian.* ℥ſs. *Cinnamomi*, *Garyophyllat. an* ʒij. *infund. in æqual. part. aquar. melissæ*, *ulmariæ*, *card. benedict. per horas* 48. *deinde f. ebullitio levis cum express. fort. In colatura dissolve Aloes rosat.* ℥ij. *ſs. Diagrid.* ℥j. *coagulentur ad formam extract. pro usu. Dos.* ʒſs. *ad* ʒj. ℞ *Turbith gummosi*, *sennæ*, *Hermodact. an.* ʒiij. *Diagrid.* ʒij. *Zinziberis* ʒj. *Mastiches* ʒſs. *Sacchari opt.* ʒiij. *Pulveriz. omnia subtil. & per setaceum* Purging.

ceum trajiciatur. Doſis ʒj. *in vino alb. vel juſculo.* Or, ℞ *Folior. Sennæ, Rhei an.* ʒſs. *Agarici trochiſcati, turbith, Hermodact. Cryſtalli Tartari an.* ʒij. *Jalapii, Mecoacæ an.* ʒij. *f. pulvis ſubtil. & cum ſyr. de ſp. cervina, & de pomis purg. q. ſ.f. Electuar. doſ.* ʒij. The Stronger are *Pil. è duobus, Cochiæ min. Extract. Rudii, pul. Cornichini,* &c. Theſe ought to be joined with *Calomel.* viz. ℞ *Mer. Dul.* gr. 15. *aut* 20. *Extract. Rudii, vel Cochiæ min.* ϑj. *vel* ʒſs. *fol. auri q. ſ. cum ſyr. Roſ. ſolut. f. pill.* ℞ *Extract. noſt.* ʒij. *gum. Guaiaci* ϑſs. *Mer. dul. gr.* xiv. *aſcendendo ad* ϑj. *cum ſyr. de ſpina cervina formentur pill.* In groſs Phlegmatick Bodies you may purge with *pul. Cornichini & Mer. dul.* In caſe of pain we add a grain or more of *Laudanum.* Mercury thus mixt with purgatives is it from which we muſt expect our main ſucceſs. For though the other may purge ſtrongly, they of themſelves have not vertue to check the malignity even in the leſſer ſpecies of this Diſeaſe.

This I the rather add, becauſe of the wickedneſs of many Pretenders, who will in this Cure declaim againſt the uſe of Mercury, in which if they ſpeak honeſtly, and follow their Judgments (and do not give it at the ſame time when they ſpeak againſt it, as many do) they will prolong their Cure to no purpoſe, and meet with diſgrace at laſt; it being very ſure, that no ſpecies of it will be cured without it. I know *Fernelius*, and ſome of his Diſciples writ vehemently againſt it, but the whole current of the Able Practitioners have written on the other ſide. And by what I find by my experience, I dare ſay, that *Fernelius* never cured a confirmed Pox without it, unleſs the Patient had been in ſome other hands before who had fluxed him; in which Caſe ſome ſudorifick courſe preſcribed by him might get the Credit of a Cure, whoſe foundation was laid in Mercury. I write this the more confidently, becauſe of the many attempts I have my ſelf made, and ſeen endeavoured by ſome worthy late Practicers in our Faculties without Mercury, but by omitting of it, our Cures were rendered tedious and unſucceſsful, the Ulcers the while ſpreading and breaking out freſh in ſome parts while we were endeavouring to Cure them in others, the Diſeaſe becoming more fierce in ſome of them whilſt their Bodies were purged with Catharticks without Mercury. Nay, where one of thoſe Inveighers againſt Mercury gave it in a Courſe of ſeven weeks, he could not by all his endeavours of Mercurial Emplaſters, Unguents or Waters outwardly applyed, nor with his Sweating Diet-drinks, *&c.* cure one ſmall *Herpes* in the Face, yet was better paid for his Phyſick than I was for the Cure.

Vomiting, *Vomiting* is of uſe in great diſorders of the Stomach, when the foulneſs of that requires it, or when the Ulcers of ſome particular part require a ſudden revulſion. So likewiſe when after the uſe of much Mercury outward or inward to ſalivate, it doth not ariſe kindly, we by this means cauſe a motion upward, and derive the humour that way.

Salivation, They are generally ſtrong if the party can bear them, *viz.* ſome Preparations of Mercury, as *Turbith mineral.* &c. or, Antimonial, as *Crocus Metallor.* in ſtronger Bodies; but in weaker Conſtitutions we give ſuch as we may.

The next thing which offers it ſelf to our conſideration, is, *Salivation*, without which few great Cures are done in this Diſeaſe. Nay, when a great Evacuation by Salivation is not intended, we are forced to diſpoſe the humours that way by Mercury, that being ſo diſpoſed they may be rendred more obedient to purging and ſweating Remedies. For the truth of this, I need not produce any Authority, common experience will make it evident to you; but of this hereafter.

The methods of Salivating are divers, but all by Mercury; beſides which faculty of raiſing a Salivation, it heals, attenuates, reſolves, provokes Urine, and moves noxious Humours upwards and downwards, by which not only the more

more subtil but the more gross and feculent excrementitious humors are expelled, and that according to its several Preparations, either inwardly given, or outwardly applyed.

Inwardly are prescribed various Preparations of Mercury, *viz. Merc. sublimatus, dulcis, Merc. præcipitat. albus, rubr. citr. niger, viridis*, &c. There are also different Preparations of some of these, as the *Turbith Minerale*, the Amalgamations of Mercury with Gold, *Theriaca Metallor.* &c. They Purge, Vomit, and Salivate, or are Sudorifick, and are stronger or weaker in their Operations, according as they are freed of their corrosive quality. The strongest of them are capable of being rendred sweet, and of being dispirited both of their Vomitive and Salivating qualities.

When we design Salivation by *Mercurius dulcis*, we give it from 20 to 25 grains, and sometimes to thirty, either in a spoonful of white bread and milk, or in *conf. ros. rub. conf. boraginis, confect. Alchermes*, or some such like Cordial Electuary. When we suspect it may work by stool, we prescribe it in *Elect. Diascordii*, or *Theriacæ* at night going to bed, and then it also serves to alleviate their pains, and dispose them to rest. If after the taking it 4 or 5 dayes their chops do not swell, it may be reasonable to move it upward by a few grains of *Turbith Minerale*. Accordingly as their chops swell they will salivate. If their mouths be much ulcerated and swelled, the Salivation may last 18 or 20 dayes, during which they are to be kept warm, especially about their head, neck and chops, and to drink Chicken-broth, or Posset-Ale.

In the *Declination* of the Flux, we prescribe them a *Decoct. Sarsæ*, and before it ceaseth, we purge them with some Cathartick Apozeme, and proceed in the rest, as shall be shewed in its proper place.

But the Salivating with *Merc. dulcis* alone will scarce cure the middle *Species* of this Disease. For though the Ulcers do cicatrize, and wandering pains remit thereby, yet they will return, or new pustules will arise, as that Salivation declineth, or presently after. And indeed I have found better effects by the frequent purging with it mixed with some good Cathartick, than by the only Salivating with it alone.

Merc. Præcipitatus albus may be given proportionably, as hath been said of *Merc. dulcis*.

Arcanum Corallinum, as it is generally sold in the Shops, may be given from three Grains to 5. One dose of it prescribed by me to a Woman Diseased with *Serpigo*, &c. vomited her often, and Salivated her twenty days, contrary to my intention, but cleared her skin of its foulness.

Red Precipitate is also Vomitive, but being well washed may be taken as safely as the *White Precipitate*. But since I practised here in the City, I have not used it. *Præcipitatus viridis* is also Vomitive, and the most churlish preparation of Mercury; the dose is much about the same as that of *Arcan. Corallin. Hartman* prescribed it to eight Grains.

Turbith Minerale, as it is sold in the Shop, is a rough Medicine, but being somewhat dulcorated, first procureth Vomiting, then Salivation, and is proper to make a sudden revulsion in such cases where there is a necessity of giving a speedy relief to an afflicted part, and contributeth to the cure of this Disease in such cases where *Merc. dulcis* hath not force. That which I commend to your Use is made out of *Vigo's Precipitate*, and may be given from twelve to eighteen Grains, but I rarely prescribe it to any that have not first taken *Merc. dulcis*. It takes off nocturnal pains, and resolves *Gummata* and *Nodes* which have not been of long continuance, and hasteneth the Cure of the most malign Ulcers that accompany this Disease.

Mercury Amalgamed with Gold doth Vomit and raise Salivation, but is ge-

nerally corrected and made a Sudorifick: So the *Turbith Minerale* is made Diaphoretick.

Bezoardicum Minerale, and *Æthiops Mineralis* are also Diaphoretical, and of their Use you may see more hereafter.

Mercurius sublimatus corrosivus dissolved in *Aqua fontis* given inwardly doth also raise Salivation and Vomiting, if the Dose be proportioned. It is much commended by some Practitioners, but I never made tryal of it.

This following I have frequently prescribed, and so may you if you please: ℞ *Merc. sublimat.* ʒij. *Cinnamomi, galangæ, curcumæ an.* ʒij. *croci* ʒj. *aq. fumariæ* ℔ij. *infundantur in Balneo per horas* 24. *deinde colentur pro usu.* The Dose is 3 or 4 spoonful in a morning, and is to be repeated many days, they drinking Posset-drink, as in other Vomitives.

There is also a way of Salivating by dissolving of *Merc. sublimat.* in a Bath; the use and manner of making it you may see in the Chapter of *Elephantiasis.*

Crude Mercury is also frequently prescribed internally to raise Salivation, and is given from one Scruple to two or higher, *cum terebinth. Veneta.* The Pill *Barbaroſæ*, which is a mixture of crude Mercury with *Troch. Alhand. pul. Jalap. diagrid.* &c. and is commonly called the *Blew Pill*, purgeth powerfully, and frequently raiseth a Salivation. I made some tryal of it, but it never answered my expectation; yet may Cure the lesser *Species* at the long run, if the Patient keep his Chamber, and observe a strict method in Diet, Sweating, *&c.*

These following Pills were prescribed by Sir *Theodore Mayern* to raise a Salivation. ℞ *Terebinth. Venetæ coctura induratæ Rhei electi. pulver.* ʒʃs. *Pul. Sarsaparillæ*, ʒj. *Myrrhæ, gum. Guaiaci, Mastich. succin. albi an.* ʒij. *fol. auri* n° 36. *Mercurii Philosoph. vel aliàs ex cinnabar. resuscitati ad pondus omnium, balſ. Peruvianæ q. ſ. Doſ.* ʒj. ad ʒij.

There is also a way of raising Salivation by suffumigation, the prescription whereof is as followeth: ℞ *Cinnabar.* ʒij. *Merc. crud.* ʒj. *Mastich. Thuris, Sandarachæ, an.* ʒʃs. *Styracis, Calam. Benzoin an.* ʒiij. *f. omnium pul. subtil. qui excipiatur Terebinth. q. ſ. formentur Trochiſci ad pondus* ʒiij. *pro usu.*

When the *Lues Venerea* is grown inveterate, and affecteth the most solid parts with *Gummata, &c.* and the habit of body debilitated and vitiated by the frequent exhibition of Mercury, it then requireth a more powerful Remedy, *viz.* Salivation by Unction. There are various sorts of them published by Authors, who have treated of the Cure that way; the principal Ingredient in it is Quicksilver, it is that which doth the Work, the additional Materials may be at your own choice, every one compounding them as they think fit. You have an Example of one in the *Pharmacopœia Londinenſis*, under the name of *Unguent. Neapolitanum*, that hath four ounces of crude Mercury to two pounds of Oyntment: By others, ℞ *Axungiæ porcinæ* ℥vj. *Butyri rec.* ℥iij. *Styracis liquidæ* ʒiij. *Hydrargyri triti & extincti* ʒj. *ceræ q. ſ.* This following is weaker. ℞ *Axung. porcin* ℥iij. *Terebinth.* ʒj. *pul. Ireos, Thuris, Mastiches an.* ʒij. *Olei Cham. Lilior. an* ʒij. *Laurini* ʒj. *Styracis calamitæ* ʒʃs. *argent. vivi* ʒij. M. *ſ. a.* Authors have generally proportioned the quantity of Mercury according to the strength of the Patient, and some of them have undertaken to direct you how much of the Unction you shall use at a time, but that would be extreamly troublesome to observe, and may prove dangerous to the Patient at last.

The Unction which I have used for the most part this last twenty years hath been made by a prescription of Sir *Alex. Fraſier*, whose Practice with it I had frequently seen with good success. In it there is 6 ounces of crude Mercury to 16 ounces of the Materials. If you shall make up an Unction at that rate, you will find your curiosity in the choice of the Oyntments to mix with the Mercury not to be so very necessary, for I have sometimes raised a Salivation very well

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by mixing 6 ounces of crude Mercury extinguished in *Terebinth.* with 16 ounces of *Axung. porcinæ*, and for Common People a prepared *Axung.* with an addition of *Ol. Terebinth.* hath served: For the better sort of People ℞ *Axung. porcinæ* ℥vj. *Unguent. Nervin.* ℥iv. *Unguent. Laurini, & Dialthææ an.* ℥jss. *Ol. Vulpini* ℥j. *Styracis liquidæ* ʒiij. *pul. rad. Ireos Florent. Gum. Guaiaci an.* ℥ss. *Ol. Caryophyl. q. s. Argent. vivi extinct. cum Terebinth.* ℥vj. *Ms.* The preparation to this way of Salivating is by bleeding and purging, if their bodies will bear it; otherwise bathe them, and keep their bodies soluble the while by Clysters, Lenitive Bolus's of *Cassia, Manna, cum syr. violar.*

In order to your farther prosecution of this course your Patient ought to lodge near your house in a close warm Chamber; If the season be cold the windows must be covered with blankets, and the bed near the fire, and incompassed with a Screen if the Chamber be large. You ought also to have a strong healthy Nurse, such as hath been accustomed to the imployment, that she may in the absence of the Chirurgeon know how to wash the Patients mouth, and direct and incourage him in such Rules as may be necessary in the time of Salivating.

The most proper place for Unction is a Stove, if it may be had, and the Patient can bear it; if he be weak his Bed must be used, otherwise for want of a Stove he must sit incompassed with a screen (as I said) by the fire side but not too near it. If in the anointing he use his own hands, he may save his Chirurgeon much trouble, and do the work better than it can be done for him: But if other help be required, then we arm our hands with bladders or gloves, and fall to it. The old, and still most common method adviseth to begin at the Feet, and thence to arise to the Legs, Thighs, Hips, and so upwards on the Spine to the Neck, taking in Hands, Arms, Shoulders. The Belly ought to be avoided. And indeed much of the other trouble in weak bodies may be spared, for in such the anointing of the Legs and Arms, (or Thighs, if modesty prevent you not) will obtain the same; and it is sufficient if the Mercury mix once with the blood to such a degree as to cause a Salivation. Whatsoever the manner of the Unction be, the parts first anointed ought to be covered before you proceed to the next, as the Legs with stockings, Thighs with trouzes, *&c.* till at last his neck be well wrapped with a napkin tacked up to his Cap round about to his ears, and fastned before to keep his chaps warm. After this a warm Bed will be convenient, and a draught of Posset-drink in order to a breathing sweat. Having so reposed himself an hour or two, he may rise and provide for his dinner, which must consist of meat of easie digestion, roast or boiled. To his dinner he may drink Beer or Ale with a toast, the rest of the day he must be confined to Posset-drink. Unction may be repeated twice a day if you see cause. But if the chaps swell apace you must moderate your hand, and it may be quite hold it off, lest you bring on the Salivation too fast, and endanger the Patient: when he comes to this state you must keep him to the use of Posset-drink and Broath, which ought to be ready in quantity. Also burnt Wine, *aq. Theriacalis, &c.* must be ready to prevent fainting. His mouth must be syringed with a *decoct. hordei cum liquiritia, rad. altheæ*, &c. New Milk held in his mouth, or Chicken-broath will ease the pain, and digest the sloughs that arise. A rolled clout ought to be placed between his teeth to keep his Chaps from closing. He must be raised high in his Bed, if his weakness constrain him to it, and kept forward that his Rheum may run out and not down his throat; but if he can rise, he will spit better and more plentifully. Salivations by Unctions commonly last 24 or 25 days, sometimes to the 30 day.

In the height of it our work is to keep up their strength; and if through Costiveness they spit less, give them a Clyster that they may spit better, and attend the washing their mouths; but as the sloughs begin to separate, which will be towards

towards the declenſion of the Salivation, preſcribe them a decoction of *Sarſa, &c.* to drink at leaſt thrice a day; and before the ſlough's quite caſt off, purge them with ſome cathartick Apozeme made in ſome of the foreſaid *decoct. Sarſæ*; and as they are able to eat meat, put them into a drying diet and ſweat them, *&c.* as ſhall be ſhewed in its proper place.

It happeneth ſometimes in anointing, that their Mouths are much ulcerated, and their Breaths ſmell ſtrong, yet their Cheeks do not ſwell, nor they ſpit conſiderably; in which caſe forbear the anointing, and conſider the cauſe of it, and if the Body be ſtrong and Plethorick, vomit them with *Turbith*, or *infuſ. croc. metallor.* but if they be weak or coſtive, adminiſter a Clyſter, and if afterwards it ariſe not, diſpoſe them to ſweat with draughts of warm Poſſet-Ale, or bathe them, for that way it will be ſometimes raiſed when by the other it will not. But if they have faintneſs or palpitation of the Heart, ſhortneſs of Breath, Fevour, *&c.* your beſt way will be to purge it off by ſome infuſ. of *Sena, &c.* or *decoct. Senæ Gereonis*, with the addition of *ſyr. Roſ. ſolut. ſyr. de Spina cervina, &c.* and keep up their ſpirits the while with Cordials and good Broaths. If their Lungs be oppreſt, let them blood, and preſcribe *Lohochs*; but if there be alſo a ſuppreſſion of Urine, or that they make but little Urine and high coloured, purge them with *Barnet* or *Epſom* water turned into Poſſet, and quicken it with ſome purging Syrup. If by theſe ways of purging the accidents remit, and the Salivation riſeth, it is well; but if it do not, yet there being a colliquation made, you may by well purging, ſtrict diet, ſweating, *&c.* obtain your end. While you are removing the above-ſaid accidents, you muſt have a ſpecial regard to the Ulcers within their mouths, for it is from the fixing of the Mercury that thoſe maligin Ulcers are made, which the leſs ſenſible they are of them, the more corrupt they are.

Sometimes in raiſing the Salivation by Unction it paſſeth downwards by Stool, in which caſe we preſcribe *Theriaca, Diaſcord. Laudanum opiat. &c.* which being given at night will not only ſtrengthen their Bowels, but diſpoſe them to reſt, and incourage them to go on in the anointing. A vomit of *Turbith Minerale* after the unction hath been ſomewhile uſed, doth frequently raiſe the Salivation; and after it is once well raiſed, you may heighten or continue it by the application of ſome of the Emplaſters following. But if after all your endeavours to raiſe the Salivation it doth diſcharge it ſelf in a *Diarrhœa* with great evacuation, you are then to defend the Inteſtines from the acrimony of the humours by Clyſters of Chicken broath, Milk with *ol. Olivar. vitel. Ovor.* leſt a dyſentery do follow. Suppoſitories of Deer Suet, or *ol. Hyperici, &c.* caſt up with a Syringe, are proper to appeaſe the *teneſmus*. Inwardly we preſcribe large draughts of Chicken broath, *decoct. corn. cervi uſti*, Milk and Water boyled with a ſtick of Cinnamon.

After the Flux is ſtopt, you muſt conſider the ſtrength of the Patient, and the quantity of the unction which was applied, and the greatneſs of the evacuation. If it was to the extreme weakning of the Patient, do not inſiſt long upon the thoughts of ſalivating again, but proceed with Sudorificks, *&c.* as above-ſaid; not doubting of ſucceſs in the cure. For ſuch *Diarrhœa*'s do for the moſt part contribute as much to the cure as if they had ſalivated.

There is yet another way of Salivating, and that is by the application of Mercurial Emplaſters about the Arms, Legs, *&c.* They were firſt deſigned I ſuppoſe for the more tender and delicate ſort of people who would not admit of the unction. There are various preſcriptions of them, whereof I ſhall offer you one, viz. ℞ *Empl. Diachyl. ireat.* ℔j. *Empl. de minio* ℥viij. *Gum. Caranæ, Tacamahaccæ an.* ℥iv. *Benzoini, Styracis, Calamitæ, Succini, an.* ℥ij. *Styracis liquid. & Balſam. Peruvianæ an. q. ſ. Miſceantur ſuper ignem, deinde*

amove,

amove, & addantur merc. crudi ℥viij. *cum terebinth. extincti, & fiant magdaleones.* Theſe being ſpread upon Cloath thick and applyed, you muſt then put them into a warm bed, and with a draught of warm Poſſet-drink ſweat them dayly, and treat them as hath been ſaid in the ſalivating by Unction. If it ariſe not by the firſt Plaſters you muſt apply freſh once in four or five days, and if there be occaſion you may haſten the ſalivation by a few grains of Turbith Mineral. I have ſometimes ſalivated perſons by theſe Emplaſters, but for the moſt part I uſe them to raiſe a Salivation, or continue it in ſuch where I began it with Internals, and to that purpoſe it is of excellent uſe.

The humours being evacuated by Salivation and Purging, *Sweating* will be neceſſary; Therefore we ſhall now ſay ſomewhat of their manner of Sweating. They may ſweat in Bed, or out of it. The *Bed* is proper for the weaker ſort, and there they may ſweat by Bottles of warm Water or Bricks heated and placed about them, or they may ſweat under a Frame. If they ſweat with Bottles or Bricks, they muſt have many cloaths, as Blankets, *&c.* to cover them cloſe, and the Bottles or Bricks may be wrapt in Napkins and applyed, accordingly as you deſign more particularly to ſweat any one part. Generally they are placed on each ſide near the *axilla*, the *Iſchia* and at the ſoles of the feet. If you ſweat with Bricks, let them be heated rather by boiling water than fire, leſt in the bed they burn the Patient. Sweating.

The way by a *Frame* is this; You are to fold a well aired Sheet four double, and lay it under the Patient, then his Shirt being ſtript off, the Frame muſt be placed over him, and a Sheet over that Frame, and as many Blankets over that Sheet, and both Sheet and Blankets muſt be brought over the end of the Frame, and be tucked down cloſe to the neck; then a pan of well burnt Charcoal or Spirit of Wine muſt be put into the lower end of the Frame: this done ſhut the door and take care that the heat be kept in, eſpecially about the Patients neck leſt it ſtifle him. His head ought alſo to be covered warm that it may ſweat. If he took not his Sudorifick before he was placed under the Frame he may take it now; the Diet-drink muſt be warmed, and may be commodiouſly given with a Glaſs-pipe. There is required a couple of Servants to attend the Patient during his being in the Frame: The one of them muſt attend him with a warm Napkin to wipe the ſweat off his Face, and to give him cloaths to rub his body, which cloaths ought to be thruſt in and taken out at the one ſide of the Frame. This Servant ought to have regard to his Maſter, that upon the leaſt complaint he may give warning to his fellow to renew the fire or take it out according as there ſhall be occaſion. The fire being removed and the ſheet next the Frame ſomewhat cool, the one of his Servants ſhall hold the cloaths cloſe to the Patients neck and ſhoulders, whilſt the other draws the Frame away. Then ſhall they both tuck the Blankets and covering cloſe to him, and give him another draught of his Diet-drink, and continue him in his ſweat half an hour or more if he can admit it; then gradually cool him and pull away the wet folded ſheet from under him; then rub him with dry cloaths and put on his ſhirt; and if he be diſpoſed to ſlumber an hour, he may; otherwiſe he may riſe and dine at his pleaſure. They commonly ſweat 3 quarters of an hour in the Frame, and an hour in Bed after the Frame is pulled away.

Theſe are the ways of ſweating in *Bed.*

The ways of ſweating out of Bed are by *Stove*, *Tub*, *Chair* or *Cradle.* The *Stove* is the moſt eaſie in regard they may ſit, ſtand or walk up and down; but when they go out of them to bed, the danger is in taking cold, whence new pains do ſometimes ariſe. Therefore thoſe Stoves that are near to a good bed are beſt; the other which you muſt go up or down ſtairs to, are not allowable. *Tub* and *Chair* were the old way of ſweating, but if the Patient

ſwounds

ſwounds in either of them, it will be troubleſom to get him out; poſſibly he breaks his ſhins, if he did not hang ſome while by the neck before they got him out. To avoid which they muſt take them out upon the leaſt complaint of fainting, and have ſome Cordial to relieve their Spirits.

In the *Cradles* they are ſubject to accidents by the disjointing of the Frame or breaking of the Girts, *&c.* but in every of theſe I have ſweat my Patients with much ſafety, and ſo may you.

Bathing, *Bathing* is of great uſe in the cure of this Diſeaſe, whether it be new or old. In the recent it ſerves to contemperate the great heat and acrimony of the humours, eſpecially in the *Gonorrhœa.*

In ſqualid and drie bodies where the *Lues* hath been long confirmed, Bathing is neceſſary to humect and rarifie the humours, and diſpoſe them to ſalivate. They are alſo proper after the Patient hath paſſed through the ſtrict courſe of Salivating, Purging, Sweating, *&c.* The body being thereby dried and emaciated, is hereby cooled, moiſtned and reſtored to its natural temper.

In order to the Bathing we generally let Blood and purge, if there be *plethora*; but in poor emaciated dry bodies a Clyſter may ſerve, or their bodies may be kept ſoluble by a lenient Bolus of *Caſſia, Manna, Syr. Violar. &c.* and before the Patient enter into the Bath he may drink a draught of Caudle or Broath, and in the Bath he may take a ſpoonful or two of Harts-horn Jelly, *&c.*

The Veſſel we bathe in is a Tub, wherein he may ſit up to the neck. For want of ſuch, a Barrel may ſerve, the one end being beat out and a Stool placed in it to ſit upon. The Bath Liquor is according to the occaſion and quality of the Patient, ſometimes it is all Milk, othertimes Milk and Water, or only Water, with a Bag of wheaten Bran, which ſerves the Patient as a Cuſhion, and makes the water milky. They are ſometimes perfumed with *Lig. Caſſiæ, Rhod. ſant. citrini, Calam. aromat. Junc. odorat. flor. Roſ. damaſce. &c.* The Baths of Milk are apt to ſour, therefore ought to be renewed daily, the other will laſt longer ſweet. In the time of Bathing there ought to be plenty of hot and cold water to continue the Bath of a moderate temper, neither too hot nor cold. Some Hoops ſhould be faſtned over the head of the Tub, whereon a Blanket or Sheet as a Canopy may be caſt, in caſe the Air be cold. A Servant or two ought alſo to be attending in caſe of fainting, leſt he ſink into the water. Therefore upon his complaint raiſe him up, and caſting a ſheet about him put him into a warm bed, where he may refreſh himſelf, and at his leiſure ariſe and cloath himſelf, and dine or ſup as his Appetite requireth. They may bath twice a day, but never upon a full Stomach.

During the Cure of this Diſeaſe it will be requiſite that the Patient keep his Chamber, and that it be made temperately warm; The taking of Phyſick and rambling abroad in the cold being extremely prejudicial to their Cure, and is frequently attended with a *diarrhœa*, or noiſe in their Ears with deafneſs.

Diet, There is alſo a ſpecial care to be taken concerning their *Diet*, that on thoſe days they purge, their Dinner be of good nouriſhment, boiled or roaſted. We alſo allow them good Broath and Beer or Ale to raiſe their ſtrength, ſo as they may be able to bear the evacuation which is required. But in the time of their ſweating we confine them to a very ſlender and drying Diet, only ſufficient to ſupport their Spirits. A chop of a neck of Mutton, or two Ribs dry roaſted was the old ſtint. I permit them to make choice of ſome one ſort of meat, and keep them to that, which amongſt the better ſort is a Partridge, and that without ſauce. Their ſuppers may be Bisket, Raiſons of the Sun and a few blanched Almonds, and their drink *decoct. Sarſæ, &c.* But in weak and extenuated bodies, *China*-Broths, or a mixture of Milk with their Diet-drink may be neceſſary.

Exerciſe

Exercise is of use in the beginning of this Disease, and may serve to rowze the Native heat to thrust forth the malignity and waste superfluities. But after the disease is more confirmed, violent Exercise is hurtful, exhausting the Spirits too much, and renders them less able to resist the Malignity.

Sleep is allowed in the day to refresh them, they being for the most part disturbed in the night by their pains, which are therefore called *Nocturnal.*

In the time of Salivation they must sleep when it affects them. To sleep also after Bathing and Sweating is necessary to refresh them.

Venery ought to be avoided during their course of Physick, it being one main cause of the unsuccesfulness of it: Yea, the very thoughts of it is destructive to their healths; nay, though he believed himself Cured I would not have him over-confident that way, till he hath passed a Spring or Autumn. For if he be married, and bed with his Wife, and afterwards relapse, he may possibly fancy that she infected him; which may not be unlikely, if he bedded with her before he entred into Cure. However it was, the consequence of it may be very ill, and may cause a loathing in him of her Bed, when it's possible he was not well Cured, and would have relapsed with a *Gonorrhœa* or *Chancre*, though he had not touched any Woman.

The *passions of the Mind* ought to be calmed, and the Patient to be well satisfied in the Integrity and skill of his Physician or Chirurgeon, that he may the more chearfully submit to the Rules prescribed in order to his Cure.

Chap. III.

Of the Specificks in this Disease.

IN the former Discourse I have had occasion to speak of the *Decoct. Sarsæ, &c.* as sudorificks. Indeed those kind of Decoctions are the great hinges on which the Cure depends, as being supposed to contain in them besides the Sudorifick Vertue other Specifick qualities. Which appropriation of some Simples to the Disease more than others makes it necessary, before I proceed any further, to discourse of the nature of these Specificks, which I reduce to three heads, *viz.* either *Vegetable*, *Antimonial* or *Mercurial.*

The *Vegetables* are usually reckoned these; *guaiac. lign. & cort. lign. sassafras.* Specificks. *rad. chinæ, sarsaparilla, saponaria.* Of these all but *saponaria* are known Sudorificks, and may be easily supposed to perform all that is pretended to by them, by that only faculty, unless we please to add dulcification. Whether *Saponaria* be a Sudorifick I know not; nor indeed whether ever it cured the Pox otherwise than in conjunction with the former Specificks, and so any other Herb will do it. *Laureola* is in the West of *England* much commended. I suppose what it doth is only by strong purging, and when it is mixed in Diet-drinks, it serves to keep the Body open. What other Vertues it hath I know not.

Antimony and *Mercury* are Medicaments of so large a compass, that they take in all the intentions of Physick. Hence we have Vomits, Purges, Sudorificks, Salivations. Vomiting and Purging are certainly of great use in this Disease; so is also Sweating, which is very effectually procured by several preparations of both these, *viz. Cerussa Antimon. diaphoret.* &c. *Bezoard. Minerale, Æthiops Mineral.* &c. They have the vogue of exceeding other Medicines both by their

ſtrength and power of dulcification. And therefore it is that in purging alſo we make ſo much uſe of Mercurial preparations. But that Mineral hath alſo another faculty more eminent than all theſe, ſo peculiar to it ſelf, that we find not yet any other medicine, Mineral, Vegetable or Animal that can imitate it, and that is Salivation; by vertue of which it melts down the ſerum of the blood, and with it all the acid venom contracted in it by this diſeaſe, bringing it away by the mouth.

Theſe are the ſo highly commended Specificks, of which the former are the conſtant Ingredients of the decoction to be taken during the whole Courſe, but are accommodated to the Palate and other neceſſities of the Patient by the addition of other Simples. Mercury is alſo boiled either crude or prepared: So is Cinnabar and crude Antimony: which practice I have declined, and therefore I ſhall not ſay more of it. I ſhall only proceed to inform you how to mix other Simples with theſe already mentioned as occaſion ſhall require.

Firſt therefore for aromatization we add *ſem. aniſi, fœnic. dul. coriand. calamus aromaticus, lig. Aloes, caſſia*; for other gratefulneſs *Liquoriſh*, *Raiſins*, *Ivory*, *Harts-horn*. In complication of Diſeaſes, if the Head be affected, we add *Betony*, *Sage*, *Roſemary*. If the Breaſt, *adianth. tuſſilago, ſcabioſa, marrubium, Hyſſop, Figs, Dates, Sebeſtens*, *Jujubes*. If the Heart, *rad. angelicæ, borag. Violets, Balm, ſcorzonera, ſcordium, Clove-gilly-flowers, Saffron*. If the Stomach, *Wormwood, Agrimony, centaur. card. benedict*. If the Liver, *Rhubarb, Turmerick, Liverwort, Succory, Dock-root*. If there be Dropſie joyned with it, then *Briony* of both ſorts, *Spurge, Laurel, Eſula*. For the Spleen, *Dodder, Fern, Capers, Tamariſk, Spleenwort, Germander, Calamint, Hellebor, &c.* In the diſeaſes of the Kidneys *the five opening roots*, alſo *rad. althææ, gram. ruſci, alkekengi, eryngii, the cold ſeeds, &c.* If Colick infect the Patient, *bacc. laur. juniperi, Galangal, Zedoary, &c.* Then there are the *greater* and *leſſer Scorbuticks*, alſo *rad. bardanæ & petaſitidis*, which are believed to have vertue to mitigate pain in the membranes of the bones, and reſolve nodes; alſo *rad. caryophyllatæ, conſolidæ, biſtortæ, tormentillæ*, and many others which are thought proper to be added to Decoctions, and to medicate Ale or Hydromel. All which ſeveral forms of Medicines may be varied according to ſeveral intentions. In weak Stomachs we add Wine to the decoctions. In emaciated bodies Milk. Of the *Sarſa* decoctions I ſhall for the eaſe of the young Chirurgeons, ſet down ſome particular preſcriptions, ſuch as I have ſeen preſcribed by worthy Phyſicians, and have practiſed with my ſelf ſucceſsfully.

1. Decoct. Sárſæ, *&c.* ℞ *Sarſaparillæ* ʒviij. *lig. guaiaci* ʒiv. *cort. ejuſdem* ʒij. *lig. ſaſſaffr.* ʒjſs. *raſ. corn. cervi, eboris an.* ʒvj. *infund. per noctem in aq. font.* ℔xx. *deinde coq. in vaſe clauſo ad tertiæ part. conſumpt. addend ſub finem fol. ſaponariæ cum radicib.* M. ij. *fol. agrimoniæ, veronicæ utriuſq; an.* M. j. *paſſular. enucleat.* ʒvj. *ſem. fœnic. dul. coriand. an.* ʒvj. *liquiritiæ Hiſpan.* ʒij. *aromatizetur colatura cum pauco cinnamomi pro uſu.*

2. Decoct. Sarſæ, *&c.* ℞ *Sarſaparillæ* ʒvj. *ligni ſancti* ʒiij. *cort. ejuſdem* ʒj. *lig. ſaſſaffr.* ʒij. *rad. bardanæ, ſcorzonoræ an.* ʒj. *ſantal. albi, citri an.* ʒſs. *fol. laureolæ præparatæ cum aceto* M. ij. *paſſular enucleat.* ʒiv. *rad. glycyrrhizæ* ʒj. *ſem. fœnic. dul. coriand. an* ʒſs. *infund. in aq. calid.* ℔xij. *coq. ad tertiæ partis conſumptionem.*

3. Decoct. Sarſæ, *&c.* ℞ *Rad. ſarſaparillæ* ʒvj. *lig. guaiac* ʒiij. *cort ejuſdem.* ʒj *rad. chinæ nodoſ.* ʒiij. *lig. ſaſſafr.* ʒjſs. *raſ. C. C. eboris an.* ʒj. *rad. bardanæ* ʒiij. *ſantal. rub. alb. calam. aromat. an.* ʒvj. *paſſular. ma. exacinat.* M. j. *ſem. aniſi, fœnic. an.* ʒſs. *infund. in* ℔xvj. *aq. font. per horas* 24 *in loco calido in vaſe bene clauſo, deind. coq. lento igne ad conſumption. tertiæ partis, addendo ſub finem decoctionis*

fol.

ſummitat. uphraſiæ, beton. ſalviæ ſic. & flor. 3. cordial. an. P. 1. caſſiæ lig. ʒſs. nuc. moſchat. nº 2. coletur pro uſu.

℞ *Sarſaparillæ* ʒviij. *ſcobis guaiaci* ʒiv. *ſaſſafr.* ʒij. *rad. biſtortæ, bardanæ, tormentillæ, conſolid. maſc. an.* ʒij. *fol. agrimon. ſcolopend. utriuſq; ceterach, endiviæ cum toto an.* M. j. *ſem aniſi, fœnic. dulc. coriand. an.* ʒſs. *paſſul. ma. enucleat.* ʒiv. *liquiritiæ raſ.* ʒijſs. *poſt debitam macerationem in aq. font.* ℔xx. *coq. lent. igne ad medias, aromatizetur cum pauco cinnamomo.* 4. Decoct. Sarſæ, &c.

℞ *Sarſaparillæ* ʒiv. *lig. guaiaci* ʒiij. *cort. ejuſdem* ʒij. *ſaſſafr.* ʒijſs. *rad. petaſitidis, bardanæ an.* ʒijſs. *lig. Rhodii, ſantal. citr. an.* ʒj. *ſem. cardui benedict. juniperi recent. an* ʒvj. *cort. exterior. citri ſiccat.* ʒij. *infund. in aq. font.* ℔xij. *per noctem, & coquantur ad dimidias.* 5. Decoct. Sarſæ, &c.

℞ *Sarſaparillæ* ʒvj. *chinæ* ʒiij. *ſaſſafr.* ʒj. *lig. nephrit.* ʒij. *raſ. C. C. & eboris an.* ʒſs. *ſantal. albi* ʒſs. *rad. petroſelini, graminis, ruſci, eryngii an* ʒj. *liquiritiæ* ʒij. *dactyl. exoſſat. nº* vj. *ſem. carui, coriand. an.* ʒiij. *infund. in aq. font.* ℔xiv. *coquantur ſ. a. & aromatizetur cum lig. Caſſia.* 6. Decoct. Sarſæ, &c.

℞ *Rad. Sarſaparillæ* ʒvj. *raſ. C. C. ſantal. alb. an.* ʒij. *fol. ſapon. agrimon. beton. an.* M. j. *liquiritiæ Anglic. Hiſpan. an.* ʒſs. *f. infuſ. & decoct. in aq. font.* ℔ix. *ad* ℔vj. *vaſe clauſo. Colaturam effund. ſuper fol. cochlear. hortenſ.* M. vj. *poſt debitum refrigerium fiat ſecunda colatura.* 7. Decoct. Sarſæ, &c.

℞ *Sarſaparillæ* ʒij. *ſcobis guaiaci* ʒj. *cort. ejuſdem* ʒſs. *lig. ſaſſafr.* ʒj. *rad. tormentillæ, bardanæ, vincetoxici an.* ʒſs. *raſ. buxi & lig. Rhodii an.* ʒiij. *baccar. juniperi recent.* ʒſs. *ſem. cardui benedict. & oxalydis an.* ʒij. *ſlaved. citri* ʒj. *f. infuſ. in duabus partibus aquar. petroſelini, parietariæ, meliſſæ, & una vini albi, utriuſque ad* ℔vj. *& poſt macerationem coquantur ad medias: colaturæ add. guttas aliquot ſp. vitriol. aut ſulphuris, & reſervetur pro uſu.* 8. Decoct. Sarſæ, &c.

℞ *Sarſaparillæ* ʒiv. *lig. guaiaci interioris reſinoſi* ʒiij. *cort. ejuſdem* ʒj. *ſaſſafr.* ʒvj. *rad. bardanæ, ſcorzonoræ, contrayervæ, tormentillæ, petaſitidis an.* ʒijſs. *macerentur in* ℔iv. *vini albi tenuis ſuper cineres horas 24. deinde additis aq. font.* ℔xij. *coq. ad medias, addendo ſem. aniſi, fœnic. dulcis, coriand. an.* ʒiij. *liquiritiæ* ʒij. *coletur pro uſu.* 9. Decoct. Sarſæ, &c.

℞ *Sarſaparillæ* ʒx. *rad. chinæ* ʒiv. *rad. filicis fœm. rec.* ʒiij. *ſantal. albi* ʒij. *raſ. cornu cervi, eboris an.* ʒijſs. *infund. per horas* xij *in aq. hord.* ℔xx. *& coquantur ad tertiæ partis conſumpt. ſub finem addendo paſſular. ma. enucleat.* ℔ſs. *deinde fiat colatura per manicam Hipp. addendo pro ſingulis libris liquor. ſacchari optimi* ʒj. *ſem. coriand.* ʒj. *& reſervetur in lagenis lapideis ſubere obturatis in loco ſubterraneo frigido.*

After Decoction ſome of the following Electuaries may be preſcribed to provoke ſweat, the Patient drinking a draught of ſome of the forementioned Drinks warm after them. Electuaries.

℞ *Sarſaparillæ pulver.* ʒij. *lig. guaiaci interioris reſinoſi* ʒſs. *C. C. uſti, troch. è viperis an.* ʒj. *ſantal. citr. tormentillæ, ſuccini an.* ʒſs. *antimonii diaphoret. ad pondus omnium, cum ſyrup. de pomis alterant. de rubo idæo an part. æq. f. electuarium. Doſ.* ʒj. *ſuperbibendo decoct. ſarſæ ad ſudorem provocandum.*

℞ *Sarſaparillæ pulv.* ʒvj. *rad. chinæ nodoſæ* ʒij. *oculor. cancr. ceruſſæ antimonii an.* ʒiij. *gum. guaiaci* ʒſs. *Bezoard. occident.* ʒj. *ambregriſeæ gr.* viij. *confect. alchermes* ʒj. *ſyr. è cortic. citri q. ſ. f. opiatum.*

℞ *Bezoard. minerale* ℈j. *pul. viperar.* ʒſs. M. *f. bolus cum. ſyr. de cort. citri. Sum. manè ſuperbibend. hauſt. decoct. ſarſæ,* &c.

℞ *Antimonii diaphoret. gr.* xiv. *lapid. contrayervæ, ol. ſaſſafr. gut.* iij. *confect. alchermes q. ſ. f. bolus, capiat ante ingreſſum hipocauſti.*

In caſe of pain or diarrhœa from Mercury, ℞ *Antimonii diaphoret.* ʒſs. *laudani gr.* ijſs. *conſ. roſ. rub.* ʒj. *ſyr. garyophyl. q. ſ.* M. *ſumat hora ſomn.* Or, ℞ *Diaſcordii* ʒj. *lap. bezoar. orient. gr.* vij *C. C. uſti. gr.* x. *confect. alcherm.* ℈j. *cum. ol. cinnamomi gut.* 5. *f. bolus; ſumat hora ſomni.* Or, ℞ *Conſ. rub. vet.* ℈j. *theriac. Ve-*

netæ ʒſs. *conſ. lujulæ* ʒij. *laud. gr.* iij. *confect. alchermes* ʒj. *ſumat bis in die.*

These following Preſcriptions are Sir *Theodore Mayern's.*

Electuar. Antiſiphyllicum.

℞ *Guaiaci* ʒiv. *cort. ejuſdem* ʒij. *ſarſaparillæ* ʒvj. *gum. guaiaci troch. viperar. an.* ʒſs. *C. C. primar. recent. ſuccini albi, corall. rub. margaritar. an.* ʒj. *ſantal. citr. lig. Rhodii, raſ. buxi, rad. ariſtoloch. utriuſque, gentianæ, valerianæ utriuſque, Aſclepiadis, ſcorzoneræ, angelicæ, imperatoriæ, tormentillæ, contrayervæ, zedoariæ, pæoniæ maris, cypri, enulæ campanæ an.* ʒvj. *folior. ſucc. ſcordii, chamædryos, chamæpityos, centaur. min. meliſſæ, rutæ, calendulæ, anthos, lauri, veronicæ utriuſque, ulmariæ an.* ʒx. *cort. citri & aurantior. ſiccat. an.* ʒiiſſs. *ſem. aniſi, fœniculi, card. benedict. nigellæ Romanæ, pæoniæ an.* ʒv. *baccar. junip.* ʒij. *myrrhæ, ſtyracis, calam. benzoin. croci an.* ʒſs. *fiat omnium pulv. ſubtil. cui adde pro ſingul.* ʒvj. *mellis deſpumati* ℔j, *fermentetur per duos aut tres menſes. Doſis* ʒſs. *ſuperhauſto decocto ſarſæ,* &c. *ad ſudoris provocationem ſemel quotidie per xxx. dies: & ſi cathartica cupis, adde pulver. ſennæ, turbith. & hermodactylor. an.* ℈j. *pro doſi.*

℞ *Raſ. lig. guaiaci* ℔vj. *cort. ejuſdem, raſ. buxi an.* ʒvj. *ſaſſafr. chinæ an.* ʒx. *cort. median. ulmi, fraxini, radicum vincetoxici, ſcorzoner. tormentillæ, bardanæ, petaſitidis, baccar. juniperi an.* ℔ ſſ. *ſantali citri, lig. Rhod. an.* ʒiv. *rad. cichor.* ʒiij. *ſem. cardui benedict. coriand. præp. an.* ʒij. *fol. agrimoniæ, pimpinellæ, beton. ſalviæ, hepaticæ an.* M. ij. *ſem. halicacabi, meliſſæ, milii ſolis an.* ʒiij. *flavedinis exterioris cort. citri ſiccat.* ʒiv. *turbith, ſennæ, hermodactylor. an.* ʒvj. *vini albi tenuis* ℔ *xxx. inciſa vel contuſa macerentur* 24 *horas in prædicti vini* ℔x. *& coq. ad medias. Liquor calidus indatur doliolo, & affundatur reſiduum & obturetur, ſinantur reſidere per quatriduum, poſtea bibat* ʒvj. *mane & ſero.*

℞ *Raſ. guaiaci* ʒx. *cort. ejuſdem, ſaſſafr. an.* ʒiv. *ſarſæ* ʒviij. *paſſul. ma. enucl.* ℔j. *rad. bardanæ ſiccatæ, tormentillæ, ſcorzoner. contrayervæ an.* ʒiij. *bacc. juniperi* ʒiiſſs. *fol. agrimonii, pimpinellæ ſiccæ an.* M. j. *coquantur in ſacculo laxo in gallonibus* vj. *ad* 4. *partis conſumptionem; poſtea infund. in alio ſacculo in prædicti liquoris fervent is colati gall.* iv. *fol. ſennæ, ſem. carthami contuſ. an.* ℔ſs. *cort. & rad. eſulæ* ʒiv. *hermodact. turbith gummoſi an.* ʒvj. *ſem. aniſi, fœnic. dul. coriand. an.* ʒiij. *& ſuſpende malum aurantium garyophyllis tranſfixum; fiat in doliolo caſtæ capacitatis fermentatio, & poſtea obturetur vaſculum, & bibatur mane & veſperi cum diæta tenui & exſiccante.*

℞ *Utrumque ſacculum poſt debitam coctionem & infuſionem nec non mediocrem expreſſionem in liquore prædicto, & coquantur in cerviſiæ recent. gall.* viij. *ad quartæ partis conſumptionem pro potu ordinario. Aromatizetur cum aurantiis duobus transfixis garyophyl. & flaved. cort. citri & pomor. fragrantium.*

Aqua Antiſiphyllica Sir *Theod. Mayern.*

℞ *Succor. recent. expreſſ. fol. bardanæ, petaſitidis, cardui benedict. card. Mariæ, calendulæ, ulmariæ, ſcabioſæ, meliſſæ, canabis aquat. tapſi barbati, ſalviæ, beton. fraxini, chamædryos, pimpinellæ, hyperici an.* ℔ij. *dent. leonis, cichorei, lujulæ, acetoſæ, oxylapathi, naſturtii aquat. cochleariæ utriuſque, becabungæ an.* ℔iij. *rad. recent. filicis fœmin.* ℔ij. *ba. lanæ, petaſitidis, caryophyl. pentaphyl. tormentillæ, enulæ campanæ, cypri, valerianæ utriuſque, pæoniæ maris an.* ℔j. *calami aromat. ireos Flor. gentian. zedoariæ, ariſtoloch. utriuſque, vincetoxici, cort. citri, aurantior. an.* ʒvj. *raſ. lig. ſancti, ſarſæ an.* ℔ij. *cort. ligni ſancti, buxi totius, ſaſſafr. lig. Rhod. ſantal. citri an.* ℔ſs. *baccar. juniperi* ℔jſs. *ſem. aniſi, coriand. fœnic. dul. pæoniæ an.* ʒvj. *vini albi tenuis* ℔vj. *aq. fontis* ℔xx. *Radices & ligna macerentur in vino ſuper cineres calidos per horas* 24. *addantur poſtea ſucci & aquæ, & deſtillentur in vaſe æneo amplo cum capitello, & coletur poſt validam magmatis expreſſionem. Fiat liquoris expreſſi deſtillatio ad mellaginem, quæ addito ſaccharo aut melle deſpumato reſervetur in vaſe bene clauſo. Magmati affunde aq. fontis* ℔lx. *& poſt duorum dierum macerationem deſtilla pro aqua ſecundaria minus forti, quæ cum primaria in morbis minus contumacibus miſceri poteſt, aut cum decocto ſecundario guaiaci pro potu ordinario.*

CHAP.

Chap. IV.

Of the Cure of the Symptomes.

That which now remaineth to be considered of, is, the right application of Medicaments in curing such Symptomes as the *LUES* is subject to. *Fallopius*, and others, who taught to Cure this Disease by *Galenical* Remedies, have taken much pains in contriving Medicaments for the curing the *Chancre*, *Herpes*, &c. but that will be needless here. The method of Cure I have proposed by Internals will enough contribute to the Cure of all the External Symptoms; so that only which is required from us, will be the resisting the fluxion till our Internal Remedies have taken place.

In Inflammations, Swellings and Excoriations of the *Penis* and *Pudenda*: ℞ *Summitat. rubi, equiseti, ling. cervinæ, fol. plantag. an.* M. j. *flor. ros. rub.* M. *ss. coquantur in aq. font. ad* ℔iv. *Colaturæ adde mellis com.* ℔*ss. aluminis roch.* ʒiij. *iterum sinant. parum bullire, & decoctum despumetur.* Foment the diseased parts, and inject of it between the prepuce and *glans*, or in the *pudendum*. If there be required more detersion (through the neglect of the Patient in not discovering the Malady more timely) add *mel. Ægyptiac.* proportionably as you see cause, and dip pledgets of lint in the lotion, and apply them upon the Ulcerations. If the Ulcer be in the *Uretbra*, ℞ *aq. germinum querci, plantag. & fragariæ an.* ʒij. *troch. alb. Rhasis pul.* ϑij. If that place be affected with a Chancre, then add *mel. Egyptiac.* instead of the Trochisk. But if Chancres arise in such places where you can see to apply your Medicament, touch them with *lac sublimat.* or apply pledgets of lint dipt in it, and prest out. If this prove too sharp, dress them with the former decoction.

If a Swelling arise in either or both the Groins, and no other symptome of Chancre, *&c.* afflict the Patient, endeavour suppuration by such like emplaster: ℞ *gum. galban. ammoniaci an.* ʒij. *opopanacis, sagapeni an.* ʒj. *sem. sinap. pyrethri pulv. an* ʒvj. *sapon. com.* ʒij. *picis Burgundiæ* ʒiv. *ol. lilior.* ʒij. *ceræ q. s. f. empl.* After suppuration open it, and treat it as hath been elsewhere said in the Chapter of *Bubo*. But if there be a Chancre, *&c.* accompanying it, do not attend suppuration, but purge it off with Antivenereals.

In Ulcers of the Tonsils and Palate. ℞ *Trachelii totius* M. iij. *caprifolii, prunellæ, veronicæ masc. an.* M. j. *flor. ros. rub.* P. j. *santal. rub. lig. juniperi an* ʒj. *f. decoct. in aq. hord.* ℔iv. *coq. ad tertiæ partis consumptionem. In colat. dissolve syr. de rosis siccis, diamori. an.* ʒiij. *mel. elatim.* ʒij. *f. lotio.* With this the Ulcers may be washed dayly, either by a syringe or gargling. But if the Ulcers be behind or over the palate, the best way to cleanse them will be to pass the injection up into the nostrils. During the while the Patient must hold his mouth full of water to prevent coughing or kecking. If the Ulcers be sordid, dress them with *lac sublimat.* upon an armed probe. If there be *Caries* in the *os palati*, touch it with *aq. divina Fernelii.* In case the bone be corrupted through, it will be necessary that the place be supplyed by some plate, or paste: The former are made of Silver or Gold by our Workmen to good advantage. Laminæ.

Those of Past may be made as followeth: ℞ *mastich. pellucid. pulver.* ʒj. *emolliatur in sp. vini, olibani, sandarac. gum. guaiaci naturalis, sang. draconis, rad. iridis Florent. myrrhæ, C. C. usti, succini an.* ʒj. *M. & f. pasta, ex qua formentur lamellæ.* Which being fitly applyed to the part will dispose the Ulcer to heal, Laminæ catagmatiæ.

heal, and ſerve thoſe ends you deſign it. But if ſome part of that bone be carious ℞ *Laminæ preſcriptæ* ℥j. *ariſtoloch. rot.* ʒj. *rad. pucedani, gentianæ an.* ʒſs. *caryophyl.* ℈ij. *pulveriz. & miſceantur cum pauco terebinth. Cypr. ſ. a. pro uſu.*

In *Ozæna* or Ulcers of the Noſe, and *Os ethmoides*, the matter uſually mixing with the excrementitious humours dryeth in the paſſage, and thereby prohibits the diſcharge, and increaſeth the Ulceration, and alſo the *Caries*: therefore you are in the firſt place to ſupple and remove that by caſting up mucilaginous decoctions of this ſort: ℞ *hord. mund.* ℥j. *rad. althææ* ʒij. *ſem. cydon.* ʒiij. *liquiritiæ* ʒij. *coq. in aq. font. ad* ℔ij. *colaturæ add olei amygd. dulc.* ℥iij. *injiciatur ſæpe in die.* The *mucus* being thus removed, inject ſome of theſe following.

℞ *Sarſaparillæ inciſæ* ℥iij. *infunde per debitum tempus in* ℔iij. *aq. plantag. deinde coq. ad medias: ante finem adde fol. agrimon. ſalviæ min. ſummit. rubi. an.* M. j. *flor. roſ. rub. balauſt. an.* M. ſs. *colatura ſæpius chalybeatur, & adde alum. roch.* ʒij. *f. injectio.*

Mel Magiſtrale. ℞ *Succi beton.* ℥ij. *ſucci ſcrophulariæ maj.* ℥vj. *ſuccor pimpinellæ, caprifolii an.* ℥iij. *mel. roſat. colati* ℥iv. *mel. com.* ʒiij. *coquantur ad conſiſtentiam mellis pro uſu.*

℞ *aq. calcis* ℔j. *mel. magiſtralis* ℥iij. Mſ. Which *aqua calcis* is thus made.

℞ *calcis vivæ* ℔j. *aq. pluviæ* ℔xij. *coq. ad tertias*, filter it through a brown paper for your uſe. Or, ℞ *aquar. roſ. rub. beton. majoranæ an.* ʒiv. *ſp. vitrioli dulcicati gut.* xxx. *mel. magiſtralis ſupraſcripti* ℥ij. Theſe will deterge the Ulcers, and the while you may by Antivenereals haſten the exfoliation of the bones, and conſolidation of the Ulcers. In the extirpation of *verrucæ, mariſcæ, condylomata, ficus*, &c. *aq. divina, lac ſublimati, ſp. vitrioli, & lap. cauſticus* are proper. Where theſe will not ſerve your purpoſe, the Ligature or Knife or actual Cautery will: but the recidiveation of them muſt be prevented by Antivenereals.

To cure fluttering noiſe in the Ears, *&c.* ariſing in this Diſeaſe.

℞. *Cort. guaiaci* ʒj. *cort. ſaſſafr.* ʒij *caſtorei* ℈iv. *flor. lavendulæ* ʒjſs. *caryophyllor.* ʒſs. *ſp. vini rectificat.* ℥viij. *f. infuſ. in vaſe vitreo per horas* 24 *ſuper cineres calidas*; *colatura uſui ſervetur: indatur auribus quotidie tepidè cum bombyce.*

To alleviate pains. ℞ *axung. ſuillæ* ℥iv. *ol. ſcorp.* ℥ij. *ol. chamæmel. roriſmarini, ſalviæ chymic. an.* ʒ. ſs. *olei petrolei, ſpicæ an.* ʒj. *laudan. Londinenſis* ℈j. *plus aut minus, miſceatur*; and embrocate the part affected.

If there be *Gummata*, apply *empl. è bolo, &c.* To prevent Ulceration till internals take place: If *Nodes* be the cauſe of the pain, foment them with *ſp. vini*, wherein *Opium* and *Saffron* hath been diſſolved: Or, ℞ *empl. de Vigone quater duplicato mercurio* ʒiij. *rad. bryoniæ nigræ ſiccatæ pul.* ʒvj. *cinnab.* ʒiij. *croci* ℈iv. *opii* ʒij. *ol. nuc. moſchat.* ʒj. *terebinth. q. ſ.* Or, a ſolution of *argent. viv. in aq. fortis, cum axung. porcina & cera f. ceratum.* If you will proceed higher, and ulcerate the skin, this liniment of *Hartman* will do it. ℞ *unguent. aurei* P. iij. *merc. ſublimat.* P. j. If you apply it thick ſpread, it will eat to the bone, and if it be not kept within compaſs it will ulcerate the skin as far as it ſpreads; but being diſcreetly applyed it ſeldom fails: But in my Practice I rarely uſe any of them, unleſs it be in people who by reaſon of their weakneſs are not able to bear a ſevere courſe of Phyſick; for in others I commonly reſolved them by vertue of the internal Remedies: they reſolving either in the time of ſalivating, or ſweating. Nor do I lay open the *Gummata*, unleſs they be *in Cranio*, and there indeed we ought to open them, to prevent rotting of the bones and membranes underneath. But when Ulcers with *Caries* come under my hands, I dilate the ulcers, and make way to the bones, and treat them as hath been ſet down in the Chapter of Ulcers with *Caries*; they not differing otherwiſe, ſave that in theſe the Patient ought to continue in the uſe of Antivenereals during the Cure. In conſideration that theſe diſeaſed people are confined to their Chambers during

ring their Cure, it will be reasonable to make their confinement as pleasant as we can; to which end the following Perfume may be useful.

℞ *gum. guaiaci* ℥j. *mastich. benzoini an.* ℥ij. *styracis, calamitæ, lig. rhodii, aloes, flor. ros. damasc. santali, citri, juniper, summitat. rorismarini, lavendulæ, majoranæ an* ℥ß. *f. omnium pulvis crassiusculus, qui cum aq. ros. irroretur; huic additâ dupla quantitate carbonum salicis cum mucilagine tragacanthæ in aq. naphæ extractæ.*

Observations of the lesser Species of Lues Venerea.

A Young Man having been debaucht into lascivious Company, complained to me the day after, and shewed me the Prepuce much inflamed and swelled and turned backward; there was also an excoriation between the *glans* and part of the prepuce. I fomented the *penis* with red wine, and applyed pledgets of lint pressed out of the same on the excoriation, and *unguent. album camphorat.* over all, leaving a passage for urine. Then let him blood in the arm about ten ounces. A Clyster was administred some hours after, and that night at his going to bed I sent him a *Bolus* of *conf. ros.* ℥ß. *mer. dul.* ℈j. and purged it off the next morning with *Manna* in Posset-drink, and dressed him the same morning with *decoct. plantag. summitat. rubi, equiseti, &c.* By this method of dressing, and by the repeating the use of the *mer. dul.* alone, and with purgatives, I dryed up the ulceration and inflammation, leaving the prepuce lax as formerly. I had thoughts of prescribing him a longer course, but he continued well without it. 1. Observation of inflammation and excoriation of the Penis.

Another came to me with an inflammation of the prepuce, it was swelled over the *glans*, and by the quantity of fetid matter which discharged I supposed a Gonorrhœa, at least a great excoriation between the prepuce and *glans*. I fomented it with *decoct. plantag. summit. rubi, equiseti,* &c. and injected some of it with a Syringe, and lapped a stupe about it, and continued that method of dressing it twice a day; sometimes adding a little *mel Ægyptiac.* to the decoction. I also let him blood, and repeated the method of purging, as in the former Observation, till I had healed the ulceration, and relaxed the swelling. Then returning back the prepuce, and observing that the fetid matter had proceeded only from an excoriation between the prepuce and *glans*, I dismissed him without putting him into other course of Physick. 2. Observation.

One came to me with an Inflammation and great swelling of the *glans* and prepuce, this latter being turned back in *coitu* straitned the *glans*, and hastened those accidents of Inflammation, *&c.* and would soon have gangrened in spite of all applications. To prevent which, I prepared to divide that part of the prepuce which made the stricture. It was not easie to find the way to it, by reason of the inflation of the upper tunicle; but having passed a director under it, I cut through the stricture, and gave liberty to the *glans*, then fomented the diseased parts with the *decoct. plantag. &c.* and rouled a hot stupe over it, then let him blood, and treated him as venereal. The next day I found the swelling discussed, and the prepuce lie flaccid and natural; the wound cured in the skin a few days after by the common applications This turning back of the prepuce is frequently seen in young Lads, who wantonly handle it. Sometimes it happeneth in Conjugal Rites, and not being returned soon over again, it straitens the *glans*, and accordingly hastens the accidents of inflammation. The Cure is effected by timely fomenting with emollients; but if that way fail, you must divide the prepuce as abovesaid. In some of those who have the prepuce very short, the *frænum* is also so strait, that upon the erection of the *Penis*, 3. Observation of inflammation of the prepuce.

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the *Glans* is pulled downwards, ſo as they cannot endure coition. The remedy is by cutting the *frænum* in pieces. If you ſuſpect that the divided end may be troubleſom, clip them off at the ſame time, then put a doſſil of dry Lint cloſe between the *Glans* and that part of the Prepuce to prevent the coalition of them.

4. Obſervation of the Prepuce gangreened.

A young fellow came to me with the Prepuce inflamed, and a mortification on the upper part of it, which had ſpread the compaſs of a broad Shilling on that part over the *Glans*. In ſcarifying the *Eſchar* I found it had penetrated through: upon which conſideration I made ſeparation of the Prepuce with a pair of Sciſſors cutting it off round, then dreſſed it *cum pul. Galeni & albumine ovi*, the next day I gave him a Lenitive *Bolus*, which purged him moderately. In the making extirpation of the Prepuce I had permitted him to bleed freely, and by the Lenient purge his body was cooled, ſo that at the next opening I found the Sore digeſting. I dreſſed it with *digeſt. ex terebinth.* and the excoriation about the *Glans* with *unguent alb. camph.* The day after I purged him again with the ſame Lenitive and *calomel.* By the reiterating of thoſe purgations he was freed of the malignity. The *Penis* was cured by the common applications in ſuch caſes propoſed in the method of cure.

5. Obſervation.

One coming to me with a Chancre on the outſide of the Prepuce with *callus*, I ſprinkled it with *merc. præcipit.* and applied a pledget of *unguent. diapompholyg.* over it with bandage, then let him blood and purged him with *decoct. amarum*, giving him *merc. dul.* every other night, ſometimes two nights together. After the application of the Precipitate 2 or 3 times, I dreſſed the Chancre only with a Pledget preſſed out of *aq. calcis*, by which, with the help of the Internals, it was ſoon cicatrized and the *callus* reſolved. The reliques of the Diſeaſe which I ſuppoſed to be lurking in the body I carried off by the continued uſe of the Antivenerals, and concluded the courſe with *decoct. ſarſæ*, ſweating, *&c.*

6. Obſervation.

A man of about 26 years of age, of a full body, came to me with a Chancre between the *Glans* and Prepuce on the right ſide. I dreſſed it with *lac ſublimati.* I let him blood and purged him with an infuſion of *ſena, rhab. &c.* in a *decoct. tamarind.* with *ſyr. de ſpinâ cervinâ*, and *ſyr. ex infuſ. roſ. cum agarico.* The ſame night after his firſt ſleep he took ℈j. *calomel.* in ʒſ. *conſ. cichorei*, and the next morning I purged it off with ſome of the former infuſion. The ſecond day after I purged him with *pil. cochiæ min.* ʒſ. *merc. dul.* ℈j. and from that day purged him proportionably as his ſtrength would bear, increaſing or diminiſhing the one or other of them ſo as to avoid making his chaps ſore. The Ulcer being thus cured, and no hardneſs remaining, I then preſcribed him a *decoct. ſarſæ, &c.* and deſigned the ſweating of him; but he finding himſelf well, thought it unneceſſary, and did not drink four quarts of his Diet-drink, yet continued without relapſe.

7. Obſervation.

One of about 40 years of age of a groſs body had a ſmall Chancre on the left ſide of the *Glans*, I ſprinkled it with *merc. præcipit.* and applyed over it a pledget of *unguent. diapomphol.* then let him blood, and the next day purged him with *pul. cornachini* ℈j. which gave him 14 or 15 ſtools. The day after I purged him again with *pul. cornachini* ʒſ. *mer. dul.* ℈j. I dreſſed the Chancre with a ſolution of *mel. Egyptiac.* in a little of the *decoct. plantag. equiſet. &c.* upon Lint, and left ſome of it with him to dreſs himſelf daily. I alſo left with the Patient ſome papers of *pul. cornic.* with and without *calomel.* which he took interchangeably. He had a ſtrong body, and being pleaſed with the working of the Phyſick he took it daily, and many days after the Chancre was cured, and the hardneſs reſolved: but the weather growing cold he neither drank his Diet-drink, nor ſweat; nor in truthdid I think it ſo very neceſſary.

A month or two after he ſhewed me a round cruſty Ulcer riſe upon his Arm, and ſuch another upon his Thigh and Breaſt; I let him blood and repeated purging, and by three doſes of *Turbith Mineral* given at diſtant times, purging him between each doſe, I avoided the making his chops ſore, and dryed the Ulcers, and by a courſe of Diet-drink and Sweating ſecured him from relapſing.

8. Obſervation of a Chancre in *Urethra* and *Frænum*.

A man of about 36 years of age came to me with ſome ſmall corroſive little Ulcers on the *Frænum*, and on each ſide of it; alſo a large Chancre in the very entrance into the *Urethra* with a hard *callus* round that part of the *Glans*. I toucht the Ulcers with *lac ſublimat.* and applyed over them pledgets preſſed out of the vulnerary decoction. I let him blood ſoon after, and gave him that night ℈j. *calomel.* and purged it off the next day with an infuſ. of *Sena*, *&c.* For the more ſpeedy relief of the *frænum* I gave the next morning ℈ß. of *Turbith Mineral*; it vomited him thrice: after which I gave him a draught of the infuſ. of *Sena*, and purged it downwards. By this I checked the eroſion in the Ulcers, but the *frænum* was ſo far fretted, and withal ſo painful, that I divided it, and with the Vitriol ſtone rubbed the broken ends thereof, and continued dreſſing it as aboveſaid, and by frequent repetition of Antivenereal purgatives, I cicatrized thoſe Ulcers about the *frænum*. The Ulcer within the *urethra* healed alſo much about the ſame time. The *callus* on the top of the *glans* joining to it was a longer work, but was reſolved by the ſaid way of purging: after which I put him into a ſtrong decoction of *ſarſa*, and ſweat him with *antimon. diaphoret. &c.* purging him with *pil. cochiæ min.* and *præcipitat. alb.* every fourth day, by which courſe I confirmed his cure.

9. Obſervation of Chancre with inflammation.

A young fellow whom I had cured of a Chancre between the *Glans* and Prepuce, and was putting him into a courſe of Diet-drink and ſweating, pretended ſome extraordinary buſineſs for two or three days, in which time he came to me with an inflammation and excoriation of the *penis*, with a ſmall ulceration on the top of the *glans*, and would have imputed it to my not having well cured him: but its recency with the inflammation demonſtrated ſufficiently that it was a new Clap, and I was obliged to him that he came to me again for cure. Others of his metal have not been ſo kind. I repeated venæſection, and dreſſed him with the *decoct. plantag. ſummitat. rub. &c.* as it is ſet down in the method of cure, and purged him with *pil. ex duobus & calomel.* increaſing and diminiſhing the one and the other to avoid the making his chops ſore: then by a courſe of Diet-drink, ſweating and purging finiſhed the cure.

10. Obſervation of Chancres and Ulceration.

One of about 36 years of age came to me with the Prepuce inflamed and ſwelled over the *Glans*, the end of the Prepuce being carnous, and contracted ſo cloſe, that I could ſcarce get in my Probe. The *glans* felt hard and unequal, and much fetid matter diſcharged from between it and the Prepuce, which certainly demonſtrated Chancres and great ulceration of ſome continuance. He had alſo ſwelled Glandules in both his Groins. I fomented the ſwelling with *decoct. malvæ*, *tap. barbat. ſem. lini*, *fœnugræci*, *&c.* and injected the vulnerary decoction with *unguent. Ægyptiac.* and put in a ſhort tent of *rad. gentianæ* dipt in *oleo lilior.* into the contracted Prepuce, with directions that he ſhould put in a freſh one ſo often as he ſhould urine, or ſyringe himſelf. To which purpoſe he had many prepared bigger and leſſer. That day I let him blood, and directed a Clyſter, and purged him the next morning with *pil. cochiæ min. & merc. dul.* and repeated the ſaid Phyſick according to his ſtrength, proportioning the *merc. dul.* ſo as to avoid ſalivating. By this method and by his courſe of Diet with *Sudorificks*, the Ulcers healed, and the carnoſity reſolved; but the entrance into the Prepuce continuing narrow, I

paſſed in a pair of probe ſciſſors as high over the *glans* as the narrow entrance would admit; then pulling back the exterior tunicle I cut the inner ſtraitened coat, till I had ſo inlarged it that it turned back. That done, I applyed my Reſtrictives upon the wound and rouled them on, leaving the *glans* only covered with the circumvolutions of the rowler. The third day after I dreſſed it again, and ſaw the wound digeſting and healed in ſome parts, I dreſſed it with the *digeſt. ex terebinth. cum vitello ovi*, and applyed a folded linnen dipt *in albumine ovi* over it, and rowled it as before. I afterwards cured the wound with *unguent. tutiæ*, and then permitted the prepuce to return to its place. In this caſe I have ſometime made two or three ſtitches at equal diſtance, by which the lips have been ſooner united. In thoſe where the prepuce is not retained back, the wound cureth and leaves the prepuce deformed and troubleſome in coition, upon which account I circumciſed one lately that came out of other hands. You ought to be careful in the dreſſing ulcerations between the *glans* and prepuce; for it ſometimes happeneth, that they grow together, yea, in ſuch caſes the very entrance into the *Urethra* will contract extream narrow, and ſometimes cloſe up.

11. Obſervation. A poor Gentleman ſuppoſing his difficulty in urining proceeded from the Stone, ſilently endured it till the urine was in a manner ſuppreſſed: then I was fetcht, and ſaw the prepuce ſtretched over the *glans*, and the entrance into it carnous, and ſcarce wide enough to admit of a probe. I made a dilatation by a ſmall pair of Plyers, then paſſed in a probe, but could neither get into the *Urethra*, nor paſs conſiderably between the *glans* and prepuce. The work required diſpatch, therefore having drawn out the interior tunicle, and thruſt backward the external one, I cauſed my Servant to make a Ligature upon the prepuce cloſe by the end of the *glans*, and with a knife cut off the hard carnous end of the prepuce. I thought to have turned it back, but found the interior coat of the prepuce firmly grown to the *glans* round, as if it had been one body, and the entrance into the *Urethra* almoſt quite cloſed up by a hard *cicatrix*. I brought the inciſed lips of the coats of the prepuce together, and retained them ſo round by a few ſtitches; then having wiped away the blood with a ſpunge, I made an apertion through the *cicatrix*, inlarging the entrance of the *Urethra*, and gave way for his urine; then put in a piece of a ſearching Candle to keep the paſſage open. I dreſſed up the prepuce with *pul. Galeni* upon pledgets of lint dipt *in albumine ovi*, and brought a fold of linnen over it, leaving a paſſage for urine. That afternoon I took out the wax-candle, and put in a leaden pipe, which was eaſily retained for diſcharge of urine, and the while cicatrized the apertion there. The wound in the prepuce being digeſted and cicatrizing, I cut out the ſtitches. This Perſon piſſed out ſeventeen piples in few days after. Infants are ſometimes born without this apertion, in which caſe if it be not ſpeedily made, the urine makes its way through ſome part of the *ductus*, or the Infant dieth miſerably.

12. Obſervation of Chancre and Glands in both Groins. A young Blade was commended out of the Country to a Phyſician here, who committed him to my Care. The prepuce was ſwelled and inflamed, between it and the *glans* there were many Chancres, as I ſuppoſed by the hardneſs I felt, and by the diſcharge of fetid matter, and from thence I judged the inflammation and ſwelling in the prepuce to ariſe. The Glandules in both his Groins were ſwelled. To have waited for ſuppuration in theſe had certainly cauſed the putrefaction of the other diſeaſed part, it being then in great danger through the ſo long concealing of it. Wherefore I began with fomenting and ſyringing of it with the *decoct. plantag. ſummitat. rubi*, &c. with an addition of ʒj. *Ægyptiac.* to ſix ounces of the decoction, and continued the dreſſing of him with that twice a day. The Phyſician preſcribed him a Clyſter that night, and

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the next morning we let him blood in the Arm, and purged him the day after with *extract. Rudii & calomel.* and the next day repeated a Clyſter. The day after he was purged again with *extract. Rudii &* ℈j. *calomel.* After this manner he was treated from the 16 of *Auguſt* to the 15 of *September* following, he drinking a *decoct. ſarſæ* upon a Sudorifick *Bolus* thoſe mornings he did not purge; and from the third day of his purging he made that decoction his conſtant drink, unleſs it was thoſe mornings while he was purging, and then he drank a thin broath. By this method the Glandules in his Groins reſolved, and the Chancres cured: the calloſity alſo on the *glans* and end of the prepuce reſolved, and became naturally lax as before. Then we kept him ſtrictly to his Diet-drink, and ſweat him in a wicker-chair with *Antimon. diaphoret. gum. guaiaci*, and a warm draught of his Decoction, and purged him every fourth day with an *infuſ. ſenæ, &c.* and ſo proceeded to the fourth of *October*. Thoſe days he ſweat he dined upon a roaſted Partridge, and at night was allowed Biſket and Raiſins of the Sun; and when he purged he dined upon boiled meat and drank ſmall Ale. During the whole courſe he kept his Chamber, and by ſo doing was perfectly cured without making his Chaps ſore in the leaſt.

13. Obſervation of Inflammation and Chancre *in pudendo.*

A young Woman was put into my hands, having a great inflammation and ſwelling *in pudendo*, with a large round Chancre between the *ductus urinarius*, and the interiors of the *vagina uteri*, with great excoriation of the parts without. I let her blood, and the next day purged her with an *infuſ. ſenæ* in a *decoct. caſſiæ* and *tamarind.* with *ſyr. de ſp. cervina*, &c. and ſent her the while a pint of the *decoct. plantag. ſummitat. &c.* to ſtupe and ſyringe the diſeaſed part, which we continued the uſe of till ſhe was cured. The day after her purging, I gave her 12 grains of *turbith min.* which vomited her often, and purged her thrice. That afternoon a Clyſter of Milk and Sugar was adminiſtred, and the next day ſhe took another Clyſter. The Flux continuing on the parts, I gave her gr. viij. *turb. min.* with *conſ. roſ. rub.* in the form of a Pill, it vomited her more moderately. A Clyſter was again adminiſter'd that evening. The next morning I found her more eaſie. I then purged her with the former *infuſ. ſenæ* the two following days, by which I prevented the ſwelling of her Chaps. During this the excoriation dryed, and the Chancre was diſpoſed to Cure. From that time I purged her with the Extract ſet down in the method of Cure, adding to each doſe ℈j. more or leſs of *præcipitat. albus*, by which method ſhe was cured in few days. I then put her into a ſtrict courſe of Diet and Sweating, and thereby confirmed the Cure. I ſhall forbear giving many inſtances of this Sex, in conſideration that there is little difference in the Cure, only theſe are more ſubject to fluxion, and ſo require more powerful revulſion, and that your Topicks be more drying, leſt excreſcences ariſe upon the excoriated parts.

14. Obſervation of Chancre, with carnoſity of the prepuce.

A Man aged about 38 years, of a plethorick body, came to me with the prepuce contracted cloſe over the *glans*, it was carnous and hard, eſpecially on the right ſide, under which part I ſuppoſed there lay a Chancre. I concluded it venereal, but he not acknowledging it, I preſcribed him *pil. coch. min.* ℥j. *calomel.* ℈j. to take at twice intermitting a day between, but let him blood in the arm firſt. The foreſaid Pills working agreeably with him, he was ſupplyed with more of them, and drank a *decoct. ſarſæ* between while, and took his deſired liberty of walking abroad. By this method he ſenſibly perceived the calloſity reſolve, and was ſatisfied that I could cure him if he pleaſed, but was thereby rendered the more ſecure, and careleſs in taking that preſcribed Phyſick; ſo that after the ſpace of three weeks, when he came to me again he had many ſcabs on his head, *herpes* on his face, and other ſort about his thighs and arms, and the calloſity not much leſſened on the *penis*. At ſight whereof I prevailed with him to let me know his Lodging, which being at laſt granted, I

ſent him 12. gr. *Turbith min.* and purged it off that Afternoon with a draught of Sir *Alex. Fraſier's Potus amarus.* I repeated the *Turbith* once in three days, and gave him the bitter decoction between. Thus I dryed the Ulcers, and they ſhell'd ſoon off: The calloſity alſo reſolved eaſily, and the prepuce relaxed and turned back: yet ſome *Callus* remained a longer time upon the inner tunicle, of the prepuce; but by Diet-drink, Sudorificks, and repeating the Vomit or Purgative Pill once in four days, he was in ſix weeks perfectly cured.

15. Obſervation of Calloſity.

Now leſt you may think I am too ſtrict in giving ſo many Internals in the Cure of ſo ſmall an Ulcer as a Chancre, or rather a Chancrous *Callus.* I ſhall give you one inſtance, and the only one that I ever failed in the Cure of. It was in the year 1654. an Apothecary, ſince deceaſed, engaged a Phyſician and my ſelf in the Cure. The Chancre was of the bigneſs of a cherry-ſtone ſeated on the neck of the *glans*; the Phyſician preſcribed *Pil. Rudii & mer. dul.* to be given every other day, and a *decoct. ſarſæ, &c.* as it is uſually made with its additional ingredients. Thoſe Mornings he did not purge, he was to take ℈j. *Antimon. diaphoret. in cochl.* 1. *ſyr. limon.* He having thus preſcribed a method of Cure, the Apothecary proſecuted the courſe, and indeed there was little for me to do; but the Patient deſiring my dayly attendance, I dreſſed him with a pledget dipt in *lac ſublimat.* a medicament not inferiour to any in ſuch a caſe. The firſt 14 days we paſſed on very ſecure, not doubting ſucceſs, but from that time obſerving the *Callus* not to reſolve as I expected, I began to enquire into the Patients manner of Diet, and into the Phyſick he took. As to his Diet, he lodged in the Apothecary's houſe, who kept a good Table, his drink was *decoct. ſarſæ*, but ſo ſmall, as it was little better than water. But to that I was anſwered, it was the ſecond decoction. I then enquired for the firſt, which he ſhewed me in a four ounce glaſs in the window, and told me, the Patient drank three of thoſe in a day *tribus horis medic.* I was ſurpriſed at this new way, and did not wonder at my ſmall ſucceſs. I thought it not reaſonable to take notice of it to the Patient, but ſpake to the Apothecary to forbear the giving the ſecond decoction, and to make the firſt proportionably, as it was by the Phyſician preſcribed, and to repeat the Purgative oftner. In this latter I prevailed, but the former he juſtified, and continued that method to the laſt. By the frequent purging, and the application of a Cerote made with the ſolution of crude Mercury *in aq. fortis*, that *Callus* Chancre reſolved after we had ſpent near ſix weeks time. I then put the Patient upon ſweating, and adviſed a more ſtrict diet, but before the Patient had ſpent full out a fortnight, he grew weary of the courſe, and concluding himſelf well, brake off: but he relapſed ſoon after; whereas if he had been briskly purged, and afterwards kept to a ſtrict Diet, and a ſtrong decoction of *Sarſa*, and ſweat, he might have been perfectly cured in a month without any application to the Calloſity.

In ſtrong Conſtitutions the Malgnity of this Diſeaſe is ſometimes diſcharged by a *Bubo* in the Groin, in which caſe it ought to be drawn outward by Cupping-glaſſes, and brought to Suppuration. Yet where it is not very forward (and is accompanied with Chancres, or other virulent Ulcers, as in one of the preceding obſervations,) I do not attend its ſuppuration, but proceed in the Cure with Antivenereals, as I have there ſhewed you: but where there is only a *Bubo*, I proceed as followeth:

16. Obſervation of a *Bubo.*

One about 40 years of Age, of a ſtrong ſanguine complexion, came to me with a ſwelled Glandule in his right Groin; it was of the bigneſs of an Almond in its ſhell, ſome what painful, but without heat. I ſuppoſing it Venereal, applyed a Cupping-glaſs to it, and afterwards an Emplaſter of *Pic. Burgund. ſaponis nigr. axungiæ porcinæ, & aceti an. part. æqual.* granted the Patient liberty of Diet, by which, within three or four days the tumour fixed and grew bigger,

bigger, and heated the skin, and by the continuance of that application, it increaſed with inflammation and much pain. I then applyed this ſuppurative Cataplaſm. ℞ *rad. lilior. albor. cepar. ſub ciner. coctar. an* ℥iv. *far. tritic.* ℥ij. *axung. porci, anſeris an.* ℥iſs. *croci pulver.* ʒj. The Tumour encreaſing and not growing ſoft, I added to the ſame Cataplaſm *ferment. vet.* ℥ij. *pulpæ ficuum extract. in ſp. vini*, by which it afterwards ſuppurated. I opened it in the declining part by inciſion, and diſcharged a ſlimy crude matter. I dreſſed it with *unguent. baſilic.* upon a Tent, and afterwards added *merc. præcipitat.* Whilſt I deterged the Ulcer I let him blood, and purged him with an *infuſ. ſenæ* 3 or 4 days; but after the firſt days purging, I gave him ℈j. *calomel.* over-night, and the infuſion the following morning. During the time it was cicatrizing, I purged him with *pil. coch. min. & calomel.* every third day. The other days he drank a *decoct. ſarſæ*; and after the Ulcer was cicatrized, I gave him a few ſweats, and concluded the Cure.

17. Obſervation of a *Bubo.*

A young Man came to me having a *Bubo* in his right Groin. I applyed an Emplaſter of *Galbanum* ſpread upon leather, and continued it there ſome days, giving him the liberty of Diet. In a ſhort time it ſuppurated. I opened it by Cauſtick, and diſcharged a ſlimy matter. I dreſſed it up with Lenients to haſten ſeparation of the *Eſchar*, and applyed an Emplaſter *de mucilag.* with *empl. melilot.* After the *Eſchar* digeſted off, I deteged with *mund. Paracelſ.* purged him with *extract. Rudii & calomel.* every other day, and preſcribed a *decoct. ſarſæ, lig. guaiaci*, &c. which he drank thoſe intermitting days. After the Ulcer was cicatrized I ſweat him, keeping him that while to a ſtricter diet, by which method he was ſecured from relapſing.

18. Obſervation of a *Bubo.*

A Man about 34 years old, of a full body, came to *London*, and lodged himſelf and Wife in the houſe of his Phyſician, he being indiſpoſed with an inflammation on his belly to the left Groin, pretending he had over-heated his body by diſorder in drinking. He was adviſed to keep his bed, and diſpoſe himſelf to a breathing ſweat. After a day or two he complained more of his pain, upon which account I viſited him, and ſaw the inflammation diſcuſſed on his belly, but there remained a tumour in his Groin near ſuppurated. A Cataplaſm was applyed to it *ex rad. lilior. &c.* by which it ſuppurated a few days after, and I opened it by a Cauſtick, and gave vent to a crude ſanious matter. Whilſt I attended the digeſtion of this, the Patient took an opportunity to ſhew me ſome ſmall Chancres upon the *Penis* near the *Frænum*. I dreſſed them, and gave him a ſolution of *mel Ægyptiac. in decoct. plantag. &c.* to cure them.

The abſceſs not digeſting nor yielding to deterſives, I acquainted the Phyſician that I had diſcovered the Diſeaſe Venereal, and implored his help. He purged the Patient with *pil. Rudii, mer. dul.* and preſcribed him *decoct. ſarſæ, &c.* by which the Ulcers *in pene* were cured, and the abſceſs grew well diſpoſed to heal. But upon the Phyſicians and my diſcourſing with the Patient of his Diſeaſe he grew paſſionate, and denied it to be Venereal; and a day or two after removed out of his lodgings two or three miles into the Country, and to avoid the Diſcovery of his Diſeaſe, he diſmiſt me, and entertained another Chirurgeon, who complyed, and promiſed in few days to cure him without the help of internal Remedies: But after all his endeavours another Chirurgeon was conſulted, by whoſe advice the Patient was put into a courſe of Antivenereals at laſt, and cured of that, but grew otherwiſe Diſeaſed, and lived not many years.

19. Obſervation of a *Bubo.*

A young Man was brought to my houſe, of a Plethorick body, Diſeaſed with a hard compacted ſwelling in his left Groin; it was a *Bubo*, and like to ſuppurate, I applyed an *empl. diachyl. cum gummi.* About a week or ten days after he came to me again, it was then ſuppurated; I opened it, and having diſcharged the matter, dreſſed it with *unguent. Baſilic.* upon a tent, and applyed over it ſome

ſome of the foreſaid Plaſter, and diſmiſſed him and his Apothecary with directions how to proceed. After two months I was fetched to this Patient, and ſaw that *Bubo* terminated in a Phagedenous Ulcer about three inches in length and proportionably broad with indented callous lips. The Ulcer it ſelf was ſordid, and had corroded round under thoſe lips; he had alſo on the *ſcrotum* four large round Ulcers and others like them in *perinæo*. It was my wonder to ſee this Diſeaſe ſo rage, conſidering the courſe I had preſcribed was the ſame I had cured ſo many by: and he had taken ſo much *merc. dul.* that it was grown familiar to him, and ſeemed to encreaſe the virulency in the Ulcers. I began the work with cutting off the jagged Lips, and filled the Ulcer with pledgets ſpread with *unguent. baſilic.* dipt in precipitate, and dreſſed the other Ulcers after the ſame manner with *empl. diachalcith.* to retain them on. I did not let him blood becauſe I had permitted thoſe callous lips to bleed freely, but I directed a Clyſter to be adminiſtred that afternoon. I purged him the next day and two or three after with a *decoct. amar.* of Sir *Alex. Fraſiers*, and then gave him *gr.* xvj. *Turbith mineral.* in a Pill made up with *conſ. roſ. rub.* which vomited him well and purged him twice. That afternoon a Clyſter was given him of fat broath *cum vitello ovi.* After the firſt application of *merc. præcipitat.* I dreſſed the Ulcer *in inguine* with *unguent. baſilic.* and *merc. præcipitat.* mixed. The other I dreſſed with pledgets preſſed out of *lac ſublimat.* By the repeating of the *Turbith min.* once in four or five days, I diſpoſed the Ulcers to heal, and by Clyſters and purging draughts between while I prevented ſalivating.

After the Ulcers in the *ſcrotum* and *perinæum* were cicatrized, I put him into a ſtrict diet and kept him to the drinking of *decoct. ſarſæ, &c.* with good ſudorificks, and by purging him once in four days he was happily cured and continues ſo to this day.

20. Obſervation of *Bubones*, Chancres and pains in the ſhoulders.

Two young Lads, intimate companions, came out of the country alike clapt by one and the ſame wench; they having both failed of their Cure there, were commended to my care. They had both ſwellings in their left Groins and calloſities about the *glans* remaining from preceeding Chancres. They were alſo afflicted with *verrucæ* and *mariſcæ in podice* and pains in their Shoulders. Theſe ſwellings in their Groins were without pain or inflammation, ſo not like to come to ſuppuration. Therefore without more ado I let them both blood and purged them two or three days with Sir *Alex. Fraſier's Potus amarus*, then gave them each a doſe of *Turbith mineral.* which vomited them well, and took off their pains. The next day I ſnipt off the *mariſcæ* and *verrucæ*, rubbing their remaining roots with the cauſtick Stone; and having cleanſed them, I dreſſed them up with Lenients, and after ſeparation of the Eſchars cicatrized them with the Vitriol Stone and *unguent. epulotic.* During the Cure of theſe I repeated the *Turbith min.* once in four or five days, and between while carried down the matter by Clyſters and Lenient purgatives, by which method I reſolved the calloſities and the *glands*. Then I put them into a *decoct. ſarſæ* with ſudorificks, and with *extract. Rudii* and *calomel.* every fourth day finiſhed their Cure.

21. Obſervation of heat, *puſtulæ, &c.*

A Phyſician and my ſelf were fetched to a man whom we found in bed. He was not ſick, but broken out all over his body with heat. The Phyſician adviſed him to diſpoſe himſelf to a breathing Sweat upon a draught of warm Poſſet-drink, wherein was boiled *raſ. C. C. &c.* A Cordial Julep was alſo preſcribed as is uſual in ebullition of the *ſerum ſanguinis*. Three or four days after I viſited him again, and found that heat raiſed into many puſtules, which had alſo overſpread his head, and terminated there in as many ulcerous ſcabs amongſt his hair. Theſe were viſible ſymptoms of the *Lues*, and appeared ſo to me at the ſecond viſit I made him; but he did not acknowledge it till ſome

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few days after, and then he ſhewed me ſome corroſive Ulcers on the *penis* near the *frænum*, and ſome *verrucæ in perinæo*, yet denied that it was an infection of a late date. He was contented we ſhould proceed in the Cure, to which purpoſe he was let blood and the next day purged with an infuſed Potion. After which we purged him with *calomel. &c.* proportionably as his ſtrength would bear, avoiding the making his chaps ſore. By this method the Ulcers dried and the Scabs ſhell'd off, the Ulcers on the *penis* were dreſſed and cured as hath been ſhewed in the preceding Chapters. We then preſcribed him *decoct. ſarſæ, &c.* with *antimon. diaphoret. bezoard. min. &c.* and ſome few days he ſweat; but he ſuppoſing himſelf cured, brake off from our method: whence it came to paſs that the malignity afterwards ſhewed it ſelf in different forms. Sometimes in an *ophthalmia* threatning his eye-ſight, in which caſe he conſulted oculiſts and others, but after all was cured by us with the forementioned purgations. After that he was afflicted with a fierce Catarrh, in the cure of which he ran long courſes of pectorals, but was only relieved by us with Antivenereals. But not proſecuting that method of cure, he was ſome months after grieved with a Colick which laſted a long time, and a *hernia humoralis* attended that: upon which conſiderations he at laſt ſubmitted to a more ſtrict method, and was freed of his Colicks and other ſymptoms by purging with Catharticks, mixt with *calomel.* The courſe was finiſhed with *decoct. ſaræ*, drying diet and ſweating.

22. Obſervation of a woman with child venereal.

A Woman aged 27 years being quick with Child was broken out in her head and face and ſeveral parts of her body with *ſerpigo* and various *puſtulæ* and ſcabs. I let her blood, and the next day purged her with an infuſion of *ſena*, *rhab. &c.* to which was added *manna* and *ſyr. roſ. ſolut.* and from that time I preſcribed her *præcipitatus albus* from 15 *gr.* to 25 every other night, or proportionably, to avoid ſalivating of her. But I not having the liberty of viſiting her as I ought, it ſwelled her chaps and ſhe fluxed 18 or 20 days, and was thereby freed of her *puſtulæ, &c.* In the declination of the Flux I purged her with a *decoct. ſenæ, polypodii, hermodact. ſem. carthami, &c.* made in a quantity of Diet-drink, which ſhe drank thrice a day, and took the while a medicated broath for her nouriſhment. After her chaps were cured I put her into a *decoct. ſarſæ* and a drying diet, and ſweat her moderately with *antimon. diaphoret. gum. guaiaci* and *bezoard. occident. cum conſ. meliſſæ*, and *ſyr. limon. in forma boli*, purging her between while with the forementioned apozeme, and cured her. She afterwards went out her full time, and was delivered of a ſound Child: I made it a ſontinel in the neck. It dyed of Convulſions in the Country at three quarters of a year old.

23. Obſervation of another woman with child.

A Woman big with Child having many ulcerous ſcabs on her head and other parts of her body with great eroſion, I let her blood and preſcribed her a *decoct. ſarſæ* with ſome of the milder purgatives, *ſenæ, polypod. hermodact. rhab. &c.* and afterwards preſcribed her a few doſes, *viz.* ℥j. *calomel.* every other night, till I had checked the malignity; then preſcribed her this: ℞ *Bezoard. miner.* ℈ſſ. *gum. guaiaci gr.* xv. *antimon. diaphoret. gr.* viij. *conſ. borag. q. ſ. f. bolus.* After which ſhe drank a draught of *decoct. ſarſæ*, and ſweat moderately. By this way of proceeding her diſeaſe was palliated, and ſhe went out her full time, and was brought to bed; but the Child dyed convulſive within three weeks. After which the Mother was removed to more convenient lodgings, and cured as hath been ſaid in the former obſervation.

24. Obſervation of a Nurſe infected.

A Nurſe by giving ſuck to a diſeaſed Child was infected with great ulceration and chops with *verrucæ* on the Nipples and parts about the Breaſts, upon which account the Child was taken from her, it being ſuſpected ſhe had infected the Child. She had alſo a node upon her right hand and ſome breakings

out

out upon her limbs. I enquiring into the cauſe ſaw this poor womans Child which was born within the year very well complexioned and ſound. I cauſed her to be let blood, and purged her with *pil. cochiæ & merc. dul.* three or four times, intermitting a day or two between; then vomited her with *Turbith mineral.* and repeated it once in four or five days. To the Ulcers and ulcerations I only applyed a little *unguent. diapompholyg.* ſpread thin upon linen to prevent their fretting and ſticking to her ſhift, for they cured by the Internal Remedies. But the Nodes not reſolving, I raiſed a Salivation by the *Turb. min.* and afterwards confirmed the Cure by purging, dry diet, *decoct. ſarſæ, lig. guaiaci, &c.* with Sudorificks.

25. Obſervation of an Infant. I was ſent for to a Child that was broken out all over the Body with ſome branny and mattery ſcabs, the diſturbance whereof had extreamly emaciated the Infant. The Mother was alſo diſeaſed in the ſame manner, and big with Child; I preſcribed her a purging Apozeme, and gave her *præcipitatus albus* every other night the firſt week, and afterwards preſcribed her a medicated Ale with *ſarſa, china, lig. guaiaci, &c.* for her conſtant drink, and gave her many days *Æthiops mineral.* ℈j. at a time, and kept her body ſoluble between while with a lenitive Bolus.

I purged the Infant with *ſyr. de Rhab.* and afterwards with *calomel.* from gr. iv. to gr. vj. either in the pap of a roaſted Apple, or a ſpoonful of Milk proportionably as I ſaw he could bear it, it purged him twice or thrice, and ſometime vomited him. His grewel and pap were made with a decoction of *ſarſa, china, &c.* by theſe Remedies I dryed the mattery Scabs, and the Infant was in a great degree freed of his Itch. I alſo cauſed him to be bathed in a tub of warm water ſeven or eight days. In the declining of his Itch a *Phyma* aroſe near the *podex*, which being ſuppurated I opened by a Cauſtick, and ordered the dreſſing of it daily with *unguent. baſilic.* ſpread upon linen. This diſcharged matter plentifully for the ſpace of a month, and then it leſſened and cured. During this method of Cure, the Infant grew and recovered ſtrength; but upon the omiſſion of the Mercurials new eruptions appeared, which were removed by *Æthiops mineral.* and moderate purging, but it died ſince. His Mother by continuing the preſcribed method was Cured, and was in due time brought to bed of a healthful Child, and both the Mother and Child continue well to this day.

26. Obſervation. A Woman who ſuſpected her ſelf Venereal was brought to bed of a ſeeming healthful Child; it thrived very well for ſome months, and the skin was clear, yet it had a fontanel made in the Neck for caution. This Infant being about four months old brake out in the Head, afterwards in the Face, and moſt parts of the Body with ſuch eruptions as ſhewed it to be Venereal, yet the Mother ſeemed untainted. I proceeded with this Infant by purging it with the infuſion of *Rhabarb.* and between while with *præcipitat. albus*, which ſometime vomited him, and gave him a ſtool or two. It relieved him much, and diſpoſed the ſcabs to dry. I preſcribed him medicated grewels, and a *decoct. ſarſæ, raſ. C. C. eboris, &c.* for his drink; alſo *Bezoard. miner.* to take ſometime, by which he recovered of his Diſtemper, but died afterwards of the ſmall Pox.

By the ſame method I cured a Girle of two years old, that was broken out of her Body with *Puſtulæ* and mattery Scabs, and had a *mariſca juxta podicem*, which I have alway obſerved to be a certain Symptom of the *Lues*.

27. Obſervation of a *Herpes exedens* in the Face. One newly come out of a courſe of Phyſick, ſhewed me a ſmall dry Scab on one ſide of his Neck, and enquired of me whether I thought he was Cured. I returned a favourable anſwer, not being willing to engage in the Cure of a Diſeaſe which he ſuppoſed himſelf ſo well of, but gave him a little *Pomatum* to dreſs that Scab. Some while after other Symptomes ariſing, he put himſelf into

to

to other hands, who treated him for the ſpace of eight weeks, and diſmiſſed him cured; and upon that aſſurance he married: but within few days a new *puſtula* thruſt out and ulcerated. He writ to me to ſend him ſomewhat to palliate it till he ſhould be at more liberty to put himſelf into a courſe of Phyſick. I ſent him a Box of *pil. Rudii* with *calomel.* and an unguent to dreſs the Ulcer; but he not taking the Pills, the Ulcer terminated in a *herpes exedens*, and at laſt he ſent for me. He had a calloſity on one ſide of the *Glans* as big as a ſmall Kidney Bean, he had alſo ſome ſmall round corroſive Ulcers about the *frænum*, and was troubled with a noiſe in his ears and deafneſs. I undertook his cure and began with a Clyſter, then let him blood, and purged him the day after with an *infuſ. ſenæ, &c.* the next morning I gave him 25 grains of *præcipitat. alb.* in a *Bolus* with *conſ. borraginis*, and that afternoon a Clyſter: to the Ulcers and calloſity *in glande* I only applyed pledgets dipt in a ſolution of *mel. Ægyptiacum* in ſome of the *decoct. plantag. equiſeti, &c.* The *herpes exedens* lay round and hard in the skin and was cruſted over with a thick ſcab, which I looſened by bathing it with a *decoct. malvæ, &c.* The Scab being taken off, the Ulcer appeared ſordid and corroded round, and the Lips were high and callous. When theſe happen in the Thighs or other parts which are not ſo viſible, I do not concern my ſelf in the dreſſing them otherwiſe than to defend them from adhering to their Linen, till they be dried by internals: but in this place I was obliged to remove the callous lips and the ſeveral exereſcences in the Ulcer to render the cicatrix ſmooth. To which purpoſe I rub'd them with the cauſtick ſtone, and waſted and dried the *hyperſarcoſis* by the application of red precipitate, and afterwards by the uſe of the Vitriol ſtone and Epuloticks I cicatrized the Ulcer ſo even, as at this preſent there are no marks of it. During the work I purged him often with *præcipitat. alb. & pil. coch. min.* and ſometimes vomited him with *turbith mineral.* by which I alſo reſolved the calloſity and cured thoſe little Ulcers near the *frænum*. After I had thus freed him of thoſe maladies which affected the skin, I put him into a *decoct. ſarſæ, &c.* with the obſervance of a ſtrict diet, and ſweat him often with a *Mercurius diaphoret.* and purged him once in 4 or 5 days, by which he was alſo freed of that *tinnitus aurium*, and reſtored to a perfect health.

28. Obſervation of ſweetning the blood.

A Man aged about 40 years, of a groſs body and diſorderly life, frequently conſulting men of our profeſſion, but never obſerving any ſtrict method of cure, came one day to adviſe with me about his Diſeaſe, which was a dry ſcurf with an itch on ſeveral parts of his body, as alſo ſome wandring pains on the *ſcapulæ, &c.* Amongſt other diſcourſe he told me an eminent man in the cure of the *Lues venerea* had offered to cure him by ſweetning of his blood. The method he propoſed thereto was by purging, bleeding and ſweating, without giving one grain of Mercury. I did not believe his blood would be the better, yet if he thought ſo he might proceed in that courſe, and when he ſhould be let blood I deſired he would ſend for me. He did ſo, and I let him blood according to the directions ten ounces. It was of good colour and conſiſtence. About ſix weeks after when he had finiſhed his courſe of Phyſick, he ſent to me again. I let him blood about the ſame quantity as before. His blood was like ſome of that our Phyſicians call pleuritical, it had neither colour nor conſiſtence; yet I thought not the worſe of it (ſo he was cured) for upon a return to his wonted diet the blood would recover its former colour: but he relapſed ſome weeks after, and I let him blood again, and it was as at firſt of good colour and conſiſtence. He was well pleaſed to ſee his blood look better, but was ſo much diſſatisfied with his late treatment that he would not be perſwaded again into a ſtrict courſe of Phyſick, yet I undertook the cure, and purged him frequently with *pil è duobus* and *calomel.* and ſometimes gave him the

latter alone: he also drank a decoction of *sarsa, &c.* but with these he went abroad and thereby prolonged his cure, yet at last that malignity was so spent.

29. Observation of *Herpes*, Ulcer in his tongue and various pains.

A Man of about 30 years of age having several *Herpes* and serpiginous Ulcers on his thighs and about his body with nocturnal pains in his head and other parts, also a large Ulcer on the middle of his tongue, I let him blood, and the next day purged him with the bitter drink. The morning after I gave him a dose of *Turbith minerale*, and the third day after repeated it again, designing to salivate him; upon which account I repeated the *Turbith* five times. He had taken much Mercury and only slavered with it, but the while he was freed of all the symptoms save that of his tongue, and that seemed inclinable to heal. Therefore I purged off the Mercury with the bitter decoction for several days, till I had run him very low. Then I put him into a strict course of diet with *decoct. sarsæ, &c.* sweating and purging him the space of sixteen days, during which the Ulcer in his tongue cured. I designed bathing and a more nourishing diet, but his affairs abroad hastened him away. He was longer in recruiting his flesh than was usual; but by a milk diet he recovered it, and hath from that time continued well.

30. Observation of Ulcers on the *Uvula*, tonsils and nose.

A Country Lad was taken notice of by some of his fellow-servants in the house where he lived, to have a sore nose; he told them it was scratched in playing with a Kitten; but in progress of time the inflammation and swelling increasing very much, he was brought to me one afternoon while I was diverting my self thus. I hearing them say it was occasioned by a scratch, I did not much mind it; but so soon as I heard him speak I took notice of his hoarseness, and took him to the window, where looking into his mouth I saw the tonsils ulcerated and the *uvula* black with the mortification, and part of it separating. His nose was also stuffed with crusty Ulcers. I questioned him privately how long it was since he had a Gonorrhœa or Chancre, and who cured them. He confidently denied he ever had any, however the *Lues* was visible, and required a speedy remedy. He was presently let blood, and I gave him two papers of *mer. dul.* ℈j. in a paper, with directions to take the one at night in a spoonful of bread and milk, and the other in the morning, and two hours after to drink Posset-drink with an ounce and half of *Manna* dissolved in it. I directed the dressing of the *uvula* and those Ulcers of the tonsils with *aq. divina Fernelii* daily till my internal prescriptions disposed them to a healing condition. To which purpose I repeated the *mer. dul.* with some of the purgatives between while, and in the space of ten days cured those Ulcers in his throat. His nose was syringed with *decoct. hordei*, by which the crusty matter which stopt his nostrils was removed. Then we syringed with some of the *Errhia* set down in the method of cure. After the Ulcers in his throat were digested, I hastened the exfoliations of the bones in his nose by the giving him 2 or 3 doses of *Turbith*, which made a light salivation. Towards the declination of it I purged him with the bitter decoction, and by diet drink, strict diet, sweating, *&c.* finished his cure.

Coming one day to put him out of his course of Physick, I saw the edges of one of his nostrils sore, which I supposed a new eruption: it surprised me to see it so soon break out again. I was angry with the Nurse, suspecting there had been some neglect in the prosecution of his course of Physick; but the Nurse replyed, he had made his nose sore by picking of it. For a farther tryal I advised the Patient to forbear so doing, and to keep his chamber a while longer; he did so, and 3 or 4 days after I visited him again, and saw that nostril well, and was satisfied that he had picked it. I advised him to be more careful of his health, and dismist him.

One

One of about 20 years of Age came to me with his Head over-spread with crusty ulcers; also some serpiginous ulcers about his Body, and a Node upon the back of his hand, with a gumminess on the tendons reaching to his fingers, insomuch as he could not bend one of them. In endeavouring his Cure, heretofore he had run long courses of Physick, and was much emaciated thereby. I began with the fomenting and embrocating his hand with discutients, and applyed the mercurial *Empl.* set down in the method of Cure, and purged him with *diagridium, bezoard. minerale, calomel. in conf. ros. Damasc.* and the night after gave him an Opiat *Bolus* with gr. j. *Laudan.* Thus I proceeded according as his strength would admit, and prescribed him *decoct. sarsæ*, and medicated Broaths, by which I dryed and shell'd the ulcerous Scabs, and eased his Pains. After I found his strength recovered, I gave him 10 gr. of *Turbith*, and observing that he bare it well, I repeated it a second and third time, and thereby salivated him about 17 or 18 days: all which time I nourished him with the aforesaid Broaths and Posset. During the Salivation the Gumminess resolved, and the Node diminished much. As the Salivation declined, I again prescribed him the *decoct. sarsæ*, and purged him with the bitter Apozeme; then by a strict Diet, sweating and purging, the Node resolved, and his hand was restored to its former state, and I dismissed him perfectly Cured.

31. Observation of *Pustulæ*, and a Node on the back of the hand.

One of about 40 years of Age, having a *Herpes exedens* on his right brow, a *marisca in podice*, and some *verrucæ* about the *glans*; also some wandering pains on his shoulders; I let him blood, and purged him with the Cathartick Electuary, and *Mer. dul.* three or four days, and dressed the *Herpes*, as hath been shewed in some of the preceding Cases. And after his purging I cut off the *marisca* close with a pair of Scissors, and rubb'd the remaining Root with a Caustick stone, then dressed it up with Lenients, by which it was digested, and afterwards cicatrized it by the help of the Vitriol Stone, and the common Epuloticks. Whilst this was digesting I vomited him with *turbith mineral.* repeating it once in 3 days, and encreased the Dose from 12 to 18. gr. till I had dryed the *Herpes*, and the crust shell'd off. During this, I cut and burnt off the *Verrucæ*, as hath been said in the like Cases. These being also cured, I purged him with the bitter *decoct.* four or five days, then with *decoct. sarsæ*, and that Sudorifick of *Bezoard. miner. gum. guaiaci*, &c. I sweat him, and kept him to a strict Diet, purging him once in three or four days. His pains remitted after his taking the first Dose of *Turbith*, and by this latter course his Cure was confirmed.

32. Observation of a *Herpes exedens, verrucæ*, &c.

A Nurse was brought to me, who by giving Suck to a Diseased Infant, had the Nipple and Parts about of her right Breast very much excoriated, and four round, hard, crusty Ulcers somewhat more distant. She had a Node with pains on her right Leg, also a *Serpigo* on her right hand and fingers. She had not been troubled with a *Gonorrhœa*, nor was the *Pudendum* ever Diseased, which confirmed to me that she had gotten the infection by suckling the Child. I began her Cure with letting blood, and purged her with the purging extract and *calomel.* and after I had repeated it 3 or 4 times, and given her some *Calomel.* alone at distant times, I vomited her with *Turbith mineral.* and repeated it three days after, and thereby her Chaps swelled, and she salivated 18 or 20 days: During which, Clysters of Milk with the yolk of an Egg, were often administred, and her mouth frequently washed with *decoct. hordei*, &c. Before she had salivated six days, her Node and Pains removed. As the Salivation declined, she was purged with the bitter decoction, and her Cure was finished by *decoct. sarsæ*, &c. as hath been shewed in the former Observations.

33. Observation of *Herpes* in the breast, &c.

A Man of about thirty years of Age, of a full body, diseased with mattery scabs about his head, many *pustulæ* and serpiginous Ulcers on his thighs, and several parts of his Body, put himself into my hands. I let him blood, and

34. Observation of *Herpes*, &c.

that afternoon I prescribed him a Clyster, and the morning after purged him with *pulv. Cornachin.* and the next morning early he took 25 gr. of *præcipitat. alb.* and a Clyster that afternoon. The day after I purged him with *pul. Cornach.* ℈ij. *præcipitat. albi* ℈j. and the next two mornings gave him ℈j. of *Æthiop. mineral.* in a *Bolus* with *conf. cort. citri*, and a draught of a *decoct. farfæ*, &c. after it to dispose him to a breathing sweat. The third day I gave him 15 gr. of *Turb. mineral.* which vomited him often, and purged him twice, and in the afternoon griped him, and put him upon a *Tenesmus*; to remedy which a Clyster of Milk *cum vitello ovi, & ol. chamæmel.* was administred, and Chicken-broth and warm Posset-drink was his drink that day and the next. The day following, I gave ℈ß. *præcipitati albi, & Turbith min.* gr. vj. in a Bolus which vomited him thrice. That afternoon a Clyster was repeated, and the day after he was purged with an infused Potion of *fena, rhab.* &c. and repeated the *Æthiops mineralis* and *decoct. farfæ*, as before, three mornings together. Then I gave him 15 gr. of *Turbith*, as at first, which vomited him often, and from that time the Ulcers dryed, and in the worst of them the scabs were ready to shell off. I then purged him with the bitter decoction four or five days, and kept him strictly to the *decoct. farfæ*, drying diet and sweating, with *Æthiops min.* and purged him once in four days with *pul. Cornachini*, and *præcipitat. alb.* and so concluded his Cure in seven weeks.

35. Observation of *Herpes* and serpig. Ulcers.

A young Fellow sorely diseased with *Herpes* and fretting Ulcers from his right hip and buttock down that thigh, having used many Remedies externally and internally, I applyed a cloath spread with *unguent. enulat.* over the ulcerous parts to defend them from sticking to his shirt, and let him blood that day, and purged him the next with an *infus. fenæ*, &c. and the day after I gave him 11 gr. of *Turbith min.* The day after that I purged him with *pul. Cornachin.* and *præcipitat. alb.* and repeated it every other day, by which his Ulcers soon dryed, and the scabs shell'd off. His skin growing smooth, he concluded himself Cured and left me, but in less than a month he relapsed, and came to me again. I repeated bleeding, and purged him with an infusion of *fena*, &c. and afterwards gave him three or four Doses of *Turbith mineral.* it made his Chaps a little sore, and somewhat he slavered. This freed him of his serpiginous Ulcers. Then I purged him with the bitter decoction, and sweat him with *decoct. farfæ*, &c. purging him once in three or four days with Antivenerals, and at last dismissed him Cured.

36. Observation of a *Herpes exedens.*

A man of a full Body, having been long afflicted with Ulcerous Scabs, *Serpigo*, and other foulnesses of the skin arising sometime in one part of his Body, and sometime in another (his Chirurgeon being dead) was recommended to my Care. The Ulcer that then troubled him was on his chin, the compass of a broad shilling, and covered with a thick scab. It seemed to me to be Venereal, but I was told otherwise, and durst not dispute it. I thought my self very unhappy in being put upon the Cure of such an Ulcer, without the help of Antivenereals. I fomented it with *decoct. hord. summitat. althææ, malvæ, & sem. lini*, and applyed a Pledget of *unguent. rosat.* over it with bandage to retain it on. The next morning the Scab came off, and there appeared a sordid Ulcer with ragged callous lips round it, also many excrescences rising up in the middle, which made the Ulcer not unlike a Honey-comb, as I have elsewhere described it. I sprinkled the Ulcer with Red Precipitate, and applyed over it small dossils of dry lint, and some Pledgets spread with *unguent. tutiæ Vig.* over them, and repeated this way of dressing every other day, till I saw the flesh in those little cells ruddy. Then I dressed them with little pellets of lint, and covered the excrescences with precipitate, and bound up the Ulcer as before, not opening it again till the third day. Thus I wasted them, and the Ulcer cicatrized

trized here and there as they were consumed. I was glad to see it cicatrize any way, and resolved without more delay to remove the callous lips. To which purpose at the next dressing I rubbed them with a Caustick Stone, and clipt off the sloughs, then sprinkled them with precipitate, and after separation of those sloughs, I rubbed the lips with a Vitriol Stone, and by the one and other I smoothed the Ulcer, and at last cicatrized it with pledgets dipt in *Lac Virgin.* but the *cicatrix* appearing unequal, I rubb'd the remaining eminences again with a little Caustick, and left it at last cicatrized more smooth to the Patients satisfaction. I was glad I had preserved my Credit with him. But it being Venereal, I suspected that it would shew it self again in the same place, but it appeared in a Node upon his skin, as you may read in some of the following Observations.

36. Observation of *Herpes exedens* over-spreading all the Body.

A man of about thirty two years of Age, of a strong Constitution, came to me upon a supposition of having the Kings Evil. His Face was o're-spread with *Herpes exedens*, some of them crusted high, with dry scabs upon his nostrils and lips; his head was covered over as it were with one scab, and in truth his whole body so diseased with eating Ulcers, that he could neither sit nor lye without very great pain; his shirt, drawers and stockings being stiff with the matter that flowed from them. Upon enquiry into the Original of his Malady, I discovered that he had contracted a *Gonorrhœa* beyond Sea, and had been diseased with *pustulæ*, &c. above half a year. I prescribed him a Clyster that evening, let him blood the next morning in the Arm about ten ounces, gave him ℈j. *Calomel.* that night going to bed, and purged it off in the morning with an *infus. senæ, rhab.* &c. The next morning he took *Turbith min.* gr. xij. and drank a draught of Posset-drink after it, which Vomited him three or four times, and purged him much. This poor Mans condition being extream uneasie, obliged me to prosecute the drying up those Ulcers with what expedition I could: Wherefore I gave him *Calomel.* and *Turbith* the oftner, and purged it downward with the bitter drink either the same day or the next, accordingly as his strength would bear, till I saw the several Ulcers dryed, and the scabs shell'd off: Then I left off the use of the purging drink, and encreased the Dose of *Turbith min.* till I saw him salivate; which salivation lasted about 18 or 20 days. In the declination thereof, I purged him again with the foremention'd decoction, and finished the course of Physick with *decoct. sarsæ*, sudorificks, sweating and drying diet, *&c.* according to my usual method. During which I rubb'd off the several remaining excrescences (rising from the Ulcers) with caustick stones, and cicatrized them with the vitriol stone, *unguent. desiccativ. rubr.* &c. and dismissed him Cured.

37. Observation of *Herpes serpigin.* &c.

One came to me having an *Herpes exedens* on his Chin, and many eruptions about his Body, with wandring pains on his Shoulders, Arms and Legs. He desired to be cured, but would not be confined to his Chamber. I declining to meddle with him upon those terms, he put himself into the hands of an Empirick whom he had formerly known in *Italy*. He undertook the Cure with great promises. But after the taking that Empiricks prescriptions a much longer time than he had undertaken to Cure him in, the Symptomes remaining, the Patient grew peevish; and the Empirick to recover his Credit with him altered his method, by which it seemed the Ulcers Cured. But in the while his Chaps swelled, and in taking cold a *Diarrhœa* with a *tenesmus* followed, and with much disorder he was brought to a Lodging near me.

I caused him to be put into a warm Bed, and prescribed him a *Bolus* sudorifick, and with a draught of warm Posset put him into a sweat, and some hours after advised a Milk Clyster *cum vitellis ovor.* &c. to lenifie his bowels, and laid him to rest with *elect. diascord.* and the next morning I purged him with an infusion

fusion of *senna, rhabarb. &c.* and repeated the opiate, by which the griping of his guts was remitted. But in this while the swelling in his chaps was sunk, and he complained of a noise and pain in his ears, and though his mouth was very sore, yet did he not spit. I much suspecting how I should cure him without salivating, gave him 4 grains of *arcanum Corallinum*, by which he vomited often, and thereby I raised the swelling in his chaps and he fluxed near three weeks. All which time I kept him to warm posset-drink and Cordials, and administred Clysters as occasion offered them. As the flux declined I purged him with the bitter decoction, and by a drying diet, sweating, *&c.* I cured him.

38. Observation of *pustulæ*, Ulcers and nocturnal pains.

One aged about 26 years having breakings out in his head, right brow, and several parts of his body, with pains on his shoulders and legs, I let him blood, and the next day purged him with a cathartick potion. Then in consideration he had failed of his cure in other hands through his irregularity, I caused the unction to be applied for some days, but he not salivating well thereby, I gave him ℈ß. *Turbith mineral.* and raised it higher, and continued it between three Weeks and a Month, during which his pains ceased, and his skin became clean. In the declining of the Flux I purged him with the bitter drink, and put him into diet-drink, sweating, *&c.* and designed to finish his course by bathing; but he supposing this latter course needless, broke off unknown to me. About two months after he was brought to me more diseased, and upon inquiry into the cause I found he had taken too great a liberty of eating and drinking during his Cure. To avoid which inconvenience now I lodged him in a house where there was a more strict guard of him; then repeated venæsection and purged him again with the bitter apozeme 7 or 8 days, and gave him *calomel.* every other night during his purging: then prescribed him a dose of 15 grains of *Turbith min.* and repeated the *Turbith min.* so often as I might conveniently do without fluxing him. After I had thus freed him of all those symptoms, I put him into a more strict diet, and by diet-drink and sweating him with *gum. guaiaci, &c.* also purging him once in three or four days, I secured him from relapse, and concluded the course by bathing him.

39. Observation of an *ophthalmia.*

A Man aged about 50 years, of a seeming healthful constitution, having been long subject to inflammations in his eyes had tryed ineffectually the several endeavours of Oculists and others by various *collyria*, purging, bleeding, blistering, shaving the head, fontanels, *&c.* At length he consulted me, relating to me the manner of his life, and the various remedies he had taken. I suspected the distemper in his eyes arose from some relict of the *Lues Venerea*; upon which surmise I readily undertook his Cure. I began it with the washing his eyes with a solution of *troch. albi Rhas. in aq. ros. rub.* and applied *emplast. ad Herniam* on his Temples. The next day I let him blood and prescribed him a Clyster. The morning after purged him with *pil. Rudii & merc. dul.* and disposed him to rest that following night with an anodyne draught. The morning after I gave him *bezoard. mineral. gr.* xv. *gum. guaiaci gr.* viij. *in cochleari cum syr. limon.* and a draught of *decoct. sarsæ, lig. lentis. cum flor. anthos, euphrag. &c.* as is set down in the method of cure, to dispose him to a breathing sweat, and advised the drinking the foresaid decoction daily, excepting when he purged, which was every fourth day. By this method his eyes were cured in the space of ten days, but he prosecuted the method longer.

40. Observation of an *ophthalmia.*

A young fellow grievously afflicted with an inflammation of both his eyes with *pustulæ* and Ulcers in the *tunica cornea* & *adnata*, also blearedness of the lids, he was returned from the Oculist as incurable; upon which account I was desired by his friends to employ my endeavours in the taking off the fluxion, and to dispose his eyes to some ease, they concluding his sight lost. I let him blood

at

at that inſtant, and purged him the next day with an *infuſ. ſenæ, &c.* He was of a ſtrong conſtitution and ſeemed to require ſuch evacuation. The evening after his purging I made him a *ſeton*, and brought a fomentation to give a breathing to the impacted humours, with which I fomented his eyes. I alſo dropt a collyrie into them of *aq. chelidon. mirabilis, &c.* as it is preſcribed in the Treatiſe *de ſtrumis*. While I was one day dreſſing his *ſeton* and eyes, I queſtioned him whether he ever had a *Gonorrhœa*; he denied it faintly. I urged him farther, and looked upon his *penis* and ſaw a hard *callus*, the remains of a Chancre. Upon ſight of this I purged him with *pul. cornachini* and *mer. dulcis*, and repeated it often, and thereby took off the fluxion, and diſpoſed his Ulcers to cure, and afterwards by *Turbith min.* vomited him once a week. Between while I preſcribed him *decoct. ſarſæ*, with *bezoard mineral. gum. guaiaci, &c.* and regulated his diet accordingly. By this method I cured his eyes, and he gradually recovered his ſight to walk about the ſtreets, and of late years can write and read.

41. Obſervation of *Fiſtula lachrymalis.*

A poor fellow came to me diſeaſed with a *fiſtula lachrymalis*, which at firſt ſight ſeemed by its callous lips to be cancerated, but being informed that he had heretofore been clapt, I readily undertook his cure, and began with letting him blood, and purged him with *pil. cochiæ min. & calomel.* During his purging I deterged the Ulcer and diſpoſed it to cure by removing the chancrous lips, and made way to the bone, which being carious I dried with an actual cautery, and from that time dreſſed it as hath been ſhewed in thoſe obſervations of *fiſtula lachrymalis* in the ſaid Chapter *de ſtrumis*, and compleated the Cure by antivenereals as in the preceding obſervation hath been preſcribed, and diſmiſſed him perfectly well.

42. Obſervation of a *Phagedæna* on the Leg.

One about 28 years of age had heretofore been afflicted with an abſceſs on the outſide of his right leg, which not yielding to the common endeavours of Chirurgery by laying open, digeſtion, *&c.* I was fetched; and ſeeing the Ulcer of a great length, the lips of it jagged and callous, I cut them off and dreſt the Ulcer with the common digeſtive, and ſprinkled the Ulcer it ſelf (which was ſordid) with *merc. præcipit.* and pledgets of dry Lint, an *empl. è bolo* over it, with a compreſs wrung out of red Wine, and rouled it up. Having thus dreſſed up the Ulcer, I enquired into the original of the diſtemper, ſuſpecting it to have riſen from ſome malign Fevour, or the reliques of ſome ill cured Clap. But the Patient denying that he ever had either of them, I endeavoured to inform my ſelf of the method preſcribed by thoſe under whoſe hands he had been, and diſcovered that he had taken *mer. dulcis, antimon. diaphoret.* and decoctions of *ſarſa, &c.* which method I again repeated, and proceeded in digeſting of the Ulcer ſome days, and put on a laced ſtocking, but I could not make good digeſtion in three days. I conſidering the evil quality of the Ulcer and the manner of life the Patient had formerly led, concluded the diſeaſe certainly venereal, and that the *merc. dul. &c.* preſcribed him was not of ſufficient force to quell ſuch a malignity. For daily practice ſheweth that *mer. dulcis* given once in two or three days will not check the leſſer ſpecies of the *Lues*; and where it is not powerful to cure, it maketh the eroſion greater, and the diſeaſe becometh more inveterate. Upon which conſiderations without farther enquiry into the diſeaſe, I attempted the cure by antivenereals, and gave him *gr.* 12. *Turbith min.* in a *bolus* with *conſ. boraginis*; it vomited him 4 or 5 times, and purged him twice, and put him upon a *teneſmus*, which I took off that afternoon by a clyſter of Milk with the yolk of an Egg, and endeavoured to excuſe the churliſh working of the medicament. The next day I ſaw the good effects of the Phyſick in digeſting of the Ulcer, and reſolved to proſecute the method or quit the Patient. I dreſſed up the Ulcer with *unguent. baſilic. cum præcipitat.* emplaſter

plaſter and bandage, deſigning to effect this Cure by Internals; to which purpoſe I repeated a Clyſter that day and the next, and the fourth day gave him 16 gr. of *Turbith mineral.* in a Pill, which wrought as the former, and directed a Clyſter again in the afternoon. That night he ſpit much, and in the following morning complained of a ſoreneſs of his Chaps; but I not obſerving him likely to flux, purged him the day after with *Manna* in a draught of Poſſet-drink, ſuppoſing I ſhould make a greater revulſion by vomiting him twice or thrice, than by the raiſing a ſlight Salivation; but he growing impatient with the ſoreneſs of his mouth, I changed that reſolution, and gave him 18 grains of *Turbith*, and thereby fluxed him 19 or 20 days. In the declination of it, I preſcribed him a decoction of *Sarſa*, and purged him with an Apozeme made in ſome of the ſame decoction. During the Salivation the Ulcer cicatrized by the application of the above mentioned Epuloticks, and I finiſhed the Cure by drying Diet and Sudorificks. After which he removed into the Country, and by a Milk-diet recovered his ſtrength, and his Leg became uſeful to him; but he continued the wearing his laced ſtocking ſometime longer. When theſe Ulcers are treated as Scorbutical, the Patient dieth tabid.

43. Obſervation of a *Herpes miliaris in planta pedis.*

One of about forty years of Age, having been long troubled with a *Herpes miliaris* which had ſpread it ſelf on the ſoal of one of his feet, came to me for Cure. He had taken *Mer. dulcis*, *Antimon. Diaphoret.* &c. Medicines proper enough to Cure the milder Species of the *Lues Venerea*; but the Patient being irregular, and not acknowledging it Venereal, failed of his Cure. At the firſt ſight of the Ulcers I concluded them Venereal, and reſolved to proceed with him by ſuch a method, or leave him to ſeek his Cure elſewhere; and began by purging him with *Pil. Rudii, & mer. dul.* and afterwards preſcribed him a few Pills of *Æthiops mineralis cum terebinth.* One of which he took every morning, drinking a draught of a medicated Ale after it. After he had taken ſix of theſe Pills, I began with the Cure of the Ulcers, dreſſing them with the *fotus* and liniment ſet down in the Cure of *Herpes*; but that not anſwering my expectation, I waſh'd the Ulcers and parts about them with warm Milk, then having cleanſed and dryed them, I rubbed the lips of them all with a Cauſtick Stone, till I had eradicated and ſmoothed them fit for to cicatrize, and then waſht out the lixivial ſalt to prevent its farther penetration. From that time I dreſſed them up with *Merc. præcipitat.* and put on a laced ſock. The third or fourth dreſſing the ſloughs crumbled off, and the Ulcers appeared well cicatrized. But within few days they all brake out again. At the ſight of which I concluded the Ulcers Venereal, and prevailed with him to take Mercury, and began with a ℈j. *Calomel*, and the next day gave him a Doſe of *Theriac. metallor.* and repeated it two or three days, I deſigning that way to Cure theſe Ulcers. But the *Theriaca* not moving him by ſtool or vomit, he wrangled with me, ſuppoſing I could not cure him but by ſuch Medicaments as worked one of thoſe ways, whereas we know by experience, that Mercury frequently cureth thoſe Ulcers by altering the quality of the Humours; but I complyed with his deſire, and gave him a Doſe of *Turbith* gr. xij. in a Pill that vomited him five or ſix times, and purged him twice or thrice. The next morning he complained of the ſoreneſs of his mouth. I adviſed him to drink warm Poſſet-drink, and to take a Clyſter, but he did neither. I being ingaged in the Cure, thought it beſt to haſten a Salivation before he ſhould be aware of it, and gave him two Doſes more of the *Turbith*, encreaſing each Doſe two grains. Theſe made his Chaps ſorer, and would have fluxed him, but he being ungovernable it cauſed a *Teneſmus*, and ran down in a *Diarrhœa* with a large evacuation, and terminated in a dyſentery. Upon the ſight hereof, I would have preſcribed him ſuch Remedie as is uſual in thoſe caſes, but he was ſo impatient at the accident,

dent as to admit of no excuſe from me, nor any of my Preſcriptions. Indeed the *Herpes* was dryed, and he had an eminent Phyſician his friend who relieved him by his Preſcriptions, and reſtored him to health ſoon after, and could as eaſily have then prevented the relapſe; but the Patient being well, concluded he ſhould continue ſo, and brake off abruptly from him without any obſervation of Diet-drink, Sweating, *&c.* and became ſo good natured as to make me a Viſit in acknowledgement of his Cure. But about a month after he ſent for me, complaining of an itching he felt in the ſoal of his foot, he ſuppoſed from his too much walking the day before; I looked upon it and ſaw a heat riſing in the skin. I believed it a return of the Diſeaſe, but having reſolved not farther to engage my ſelf in the Cure, I left him with a favourable conſtruction of it. The next news I heard of him, was, that one pretending to Chirurgery had undertaken the Cure of it by bathing it with a Decoction of Broom, and boaſted ſo confidently of the Cure, as if he had already performed it, calling them a few Kibes. But whilſt he was picking of theſe out, the Patient ſhewed me a ſwelling upon the ſhin bone, and deſired my judgment of it. It was a very well grown Node, and I gueſſed by the Patients thin Chaps that it was no ſmall diſturbance to his reſt, however it was a confirmation of the quality of his Diſeaſe, and might ſerve to alarm him to provide for his Cure. I was then taking a Journey into the Weſt country, and at my return was informed that he died under ſome Empiricks hand in his courſe of Phyſick.

44. Obſervation of many *Herpes exedens* and Nodes.

One of about forty years of Age, having *Herpes exedens* very large on ſeveral parts of his Body, came to me much emaciated thereby, he having been many years afflicted with them. He had alſo ſome Nodes lately riſen on his Legs. I purged him with *decoct. Epithymi*, and afterwards gave him *præcipitat. albus* ℈j. to 25 grains daily, and waſht the ſeveral Ulcers with *Lac Virginis*, and dreſſed them up with pledgets dipt in the ſame to dry them, till I could by Internals cure them. But in few days I perceived this Patient had been ſo accuſtomed to the taking Mercurials, as the *præcipitatus albus* was of no force, therefore I forbore the longer uſe of it, and gave him 10 grains of *Turbith mineral.* it vomited and purged him moderately. The next day I ſaw the Ulcers drying, and from that time dreſſed them only ſo as to defend them from ſticking to his linen, the third day I repeated the *Turbith*, and the fourth day after gave him another Doſe, and between while Cliſters were adminiſtred and ſometimes we purged him with *Manna* in a draught or two of Poſſet-drink. Thus the Ulcers were cured and the ſcabs ſhelled off. I then purged him with the bitter decoction four or five days, and confined him to a drying diet, and *decoct. ſarſæ*, ſweating him for ſome time with Diaphoreticks; but he finding himſelf well brake off from this Courſe before he had been fourteen days in it, which occaſioned ſome little eruptions; but by the taking of a few grains of *Theriac. metallor.* with our purging Extract, and ſometimes *Bezoard. minerale*, with a *decoct. ſarſæ*, they were dryed up, and in progreſs of time the malignity was waſted without keeping of his houſe.

45. Obſervation of Ulcers in the Arm and Leg with *Caries*.

One of about forty five years of Age, of a lean dry body, had an Ulcer on the out-ſide of the *Biceps* on the left Arm, which upon ſearch with a probe I diſcovered to be carious. He had alſo three diſtinct Ulcers on the *os Tibiæ* of the right Leg a little above the ancle, which were alſo carious. That on the Arm took its original from a Node, as the other on the Leg did from a *Gumma*. They had been ſome years ulcerated, and I ſuppoſe the malignity diſcharged it ſelf there, for other Symptomes of the *Lues* he had none at that time. I began with the Cure of theſe Ulcers by the application of Cauſticks to remove the external *Callus*, and make way to the bones. That in the Arm lay deep, and required deterſion and dilatation, which was the work of ſome weeks; but the

others on the *os tibiæ* lay ſuperficial; and as the Eſchars ſeparated in ſome of them, bits of bones came away with them. Where any remained intangled in looſe fleſh, I ſprinkled that fleſh with precipitate daily, and with that and the Vitriol Stone made way for the taking out the remaining bones, and with much eaſe cicatrized thoſe Ulcers, the exfoliation of theſe from the main bone having indeed been made to my hand by the ſtrength of Nature, and required no more from me than the making them way to come forth. But that *caries* in the bone of the Arm lay ſlab'd in matter, and was not ſo eaſily come to; and when it was, it did not yield to the ordinary application. Therefore after I had ſometime kept it unſucceſsfully dilated, I paſſed a *canula* in and by an actual cautery, dried the *caries*, and from that time dreſſed it dry with doſſils preſſed out of *ſp. vini*, and waited its exfoliation. And to haſten the work I began to purge him with an *infuſ. ſenæ, &c.* and afterwards with *calomel.* which I repeated often in a lenitive *bolus*, and put him to the drinking a decoction of *ſarſa, &c.* and with ſudorificks ſweat him: but after ſome days obſerving the bone did not exfoliate, I gave him two or three doſes of *Turbith*, and made a revulſion thereby. From that time the Ulcer dryed, and an exfoliation was made of ſome ſmall rotten bits of bones, and the *callus* which thruſt them off united with the muſculous fleſh, and the Ulcer incarned as I diminiſhed my doſſils, and cicatrized ſoon after. The Ulcers being cured thus, I concluded the courſe of Phyſick by purging, diet and ſweating.

46. Obſervation of a Node laid open, with the conſequence.

One about 30 years of age of a groſs body having been much pained on his right leg with a great node upon the ſhin, put himſelf into the hands of an Empirick for cure; who after a long courſe of purging, ſweating, *&c.* failing in his cure, employed me to lay it open. I obeyed, and having encompaſſed the tumour within a line, I applyed the white cauſtick. The next day I found the tumour ſunk, but the cauſtick had penetrated to the bone according to the length and breadth that was deſigned. I cut the Eſchar round, and raiſed it with the *Perioſteum*, and ſaw the bone ſound, and naturally white and ſmooth. I dreſſed it with pledgets dipt in *liniment. Arcei* warm, and the remaining Eſchar with *unguent. baſilic.* to haſten its ſeparation. After ſome few days the Eſchar ſeparated, but the Ulcer grew painful and enflamed, and would not digeſt: upon which conſideration I enquired into the internal preſcriptions, and finding them not of ſufficient force, I prevailed to give a few grains of *Turbith minerale*, and thereby made a revulſion. From that time I digeſted the Ulcer with that common digeſtive *ex Terebinth. &c.* and cured it as an Ulcer with *caries*; during which the malignity was eradicated by Antivenereals.

I am not againſt the applying of medicaments to further the reſolving of nodes, but the laying them open till they have made their way by apoſtemation ſeemeth to me unreaſonable, it being not only painful but alſo a prolonger of the cure. For ſuppoſing you do remove the node and cure the Ulcer, yet unleſs you do eradicate the malignity, other nodes will ariſe. Whereas if Antivenereals be rightly adminiſtred, you may reſolve the nodes by them at the ſame time. I once ſaw a very large node upon the *os frontis* reſolved meerly by a courſe of diet-drink, purging and ſweating. Sir *Fra. Prujean* was the Phyſician, and Mr. *Pearce* the Apothecary attended the Patient for his Maſter *Laxton* as I ſuppoſe. The courſe was long and more ſtrict than our Patients will now endure; but by Mercurials we do more certainly reſolve them, and in a leſs time.

47. Obſervation of *Ozæna*, Ulcer in the Palate, Nodes, *&c.*

One of about 40 years of age, of a ſtrong conſtitution, afflicted with nodes in his Arms and Legs, an *ozæna* and an Ulcer in his palate, in both which the bones were carious, had been eight weeks in Phyſick under the hands of an

Empirick,

Empirick, and being at a loſs conſulted me. They ſhewed me ſome Inſtruments they had deviſed to hook out the bones; they alſo ſhewed me ſome little bits of bones which they had broken off from the whole. I admired the ignorance of the Empirick to glory in ſuch work, but am ſince ſatisfied that a confidence in prating is a ſufficient baſis to build a practice upon amongſt ſome kind of people. As to his Inſtruments they were well enough contrived to pull out bones, but it would have been more for his credit to have deſigned ſome way to have kept them in. For in ſome of thoſe places the leaſt diminution of a bone cauſeth a deformity; and in others, as thoſe of the Palate, there will want a ſupply of *callus*, and ſo conſequently it would not only ſpoil his drinking but his voice. Upon which conſideration thoſe Inſtruments were laid aſide, and *errhina* were preſcribed, as in the method of Cure hath been ſhewed, of which he ſnuft up or injected ſome into his noſtrils often in a day. In order to his cure I reſolved to ſalivate him by unction; to which purpoſe I let him blood and purged him with a lenitive *bolus*, and afterward bathed him 3 or 4 times; then cauſed him to be anointed, and thereby raiſed the Salivation; all which time I had regard to the waſhing his chaps and keeping up his ſtrength. About the 24. day the Salivation declining, I purged him with the bitter decoction, and then put him into a *decoct. ſarſæ, &c.* and ſweat him, proportioning his diet drying according as his mouth healed. During the time of his ſalivating the Ulcers in his Noſe cured, and ſo did that in his Palate, but the bones they had pulled away left the marks; yet that in the Palate was ſupplyed by a ſmall Plate which was retained by a Spunge. Some of his Nodes diſcuſſed during his Salivation, and the other in the time of ſweating. He being thus cured we ended our courſe of Phyſick with bathing.

48. Obſervation of the *Uvula* and Palate eaten away.

One of about 28 years old being grievouſly afflicted with a Catarrh, having uſed many remedies unſucceſsfully, a *Seton* was adviſed to be made in his neck. I being ſent for to make it, found the Patient in bed ſo emaciated as it was impoſſible he ſhould continue it there without great pain. I deſiring ſome way to be uſeful to him, enquired into the quality of his Diſeaſe, and looking into his throat ſaw the tonſils extremely ulcerated, the *Uvula* and that part of the Palate eaten away. I concluded it Venereal, and before I ſtirred from him, diſcovered it was the effects of a Chancre ill cured.

I took leave of him, and acquainted thoſe that ſent me of the nature of his Catarrh. They having ſatisfied themſelves of the truth, put him into my hands. There was no great matter of credit to be gotten in endeavouring a cure, where the Patient ſhould be left to ſnuffle all the days of his life; but I obeyed them, and preſcribed him that night ℈j. *mer. præcipitat. albus* in a ſpoonful of white bread and milk. I directed the waſhing his throat with one of the Gargles ſet down in the method of Cure, and dreſſed them daily with *lac ſublimat.* preſcribing him a *decoct. ſarſæ* to be drank with a third part of milk, at the leaſt thrice a day. I repeated the *præcipitatus albus* morning or evening, alſo a Clyſter ſometime to keep his body ſoluble. By this method I cured theſe Ulcers in the ſpace of three weeks. Soon after as he recovered his ſtrength, I left off the uſe of the milk and proſecuted the courſe by a ſtrict diet, *decoct. ſarſæ*, diaphoreticks, *&c.* then fitted his Palate with a Plate of ſilver which he could put up and take out at pleaſure. It formed his voice and ſerved to lead the drink its right way. Some months after I ſaw him fat and well, and he aſſured me that the ulcerated parts were ſo contracted together that he had no farther uſe of the artificial Palate.

49. Obſervation of Ulcers in the Tonſils, Palate, *&c.* with a Node on her leg.

A Woman of about 28 years of age having been ſome while vexed with the leſſer ſpecies of this Diſeaſe, put her ſelf under ſome hands for cure; but during that method ſhe complained of a ſoreneſs in her throat, which increaſing, ſhe

consulted others, and afterwards others, but unsuccessfully. (I suppose from her own irregularity) Some months being passed, her friends recommended her to me. Both her Tonsils were much ulcerated; there was also an Ulcer upon the back part of her Palate and *Uvula*. She had also a Node upon her right leg, and wandring pains; also a *fluor albus*. I prescribed her a Lotion as in the former observation, and dressed the Ulcers with *lac sublimat*. I let her blood and directed her a Clyster that night, and the next morning ℈j. *calomel*. I repeated this latter daily, she drinking a draught of *decoct. sarsæ* after it, disposing her self to a breathing sweat, and once in four days was purged with an *infus. senæ*, *&c.* Thus I dryed those Ulcers, but by the frequent repeating the *calomel*. her chaps grew sore, and she salivated, which I was not troubled at, her Node requiring it. Upon which consideration I gave her 12 grains of *Turbith minerale* and raised it higher; and some days after when I saw the Salivation decline and the Node unresolved, I applyed a Mercurial Emplaster the whole length of that leg, and thereby continued the Salivation longer till that resolved the Node. That done, I purged her with the bitter decoction, and put her into a strict course of diet-drink, and sweat her. After her mouth was cured, looking into her throat I saw the right tonsil cicatrized, but there remained unequal lips, which were troublesom to her. I also felt with my Probe a *sinus* running downward; it was made by a coalition of the flapping lips. I suspecting these might cause some fluxion, or at least such an uneasines as might beget in her a suspition of relapse, I laid open that *sinus* and cut off those lips with the other *cicatrices*, and by rubbing the basis of the Ulcer with a Vitriol Stone cicatrized it afterwards smooth, and dismissed her cured.

50. Observation of relapse with Nodes, *&c.*

A Woman of about 28 years of age much emaciated was brought to me broken out all over her head, face, and several parts of her body and limbs. It began with a virulent *Gonorrhœa*, the cause whereof not being discovered, it continued long upon her, and after some months was accompanied with a pain in her head; for remedy whereof she consulted her Physician, but she being her self ignorant of the cause could not inform him, and consequently suffered very long under it: but after these eruptions the *Gonorrhœa* stopped, and the pain in her head ceased. What these breakings out were she had been lately informed, and desired my help. I let her blood and purged her with *decoct. senæ Gereonis*, and by a few doses of *præcipitat. alb.* and a purging diet-drink I dried up these *pustulæ* and Ulcers, and designed then a *decoct. sarsæ* with sudorificks; but she believing her self cured retired to her own house. Within half a year after she came to me again, afflicted with pains in her head, and Nodes on her shins, and Ulcers in her tonsils. I let her blood and advised a Clyster, and dressed the Ulcers in the tonsils as hath been said in the like case, and prescribed her *calomel* ℈j. in ℈ij. *diascord.* and purged her the next morning with a solution of *Manna* in Posset-drink. After I had by *calomel.* somewhat digested those Ulcers I raised a Salivation by Unction, which she bore very well, and was thereby freed of her Nodes. In the declination of the Flux I purged her with the bitter decoction five or six days, then put her into a *decoct. sarsæ*, and afterwards by drying diet and sweating, *&c.* the pain in her head went off, and the Ulcers of the tonsils were (long before I dismissed her) well and perfectly cured.

51. Observation of Ulcers in the *fauces* with a *Gumma* on the *Musc. Mastoides*.

A Woman aged about 30 years came out of the country upon a supposition of the Kings Evil. She had a hard swelling encompassing the muscle *mastoides* on the right side of her neck of a great thickness. She complained also of a soreness in her throat, and of a stinking tough flegm which she frequently hauked out, especially in the mornings. I looked into her throat and saw an inflammation

flammation upon the further part of the Palate and *Uvula*, but no Ulcer in the tonsils. The inflammation of the Palate gave me cause to suspect some latent Ulcer, and that her Disease was Venereal; but she denying it, I prescribed her a *decoct. hord.* with *syr. de ros. & diamoron*, also an *empl. de mucilag.* with *de ranis cum mercurio* to apply to the *Gumma*. Dr. *Lenthall* who brought her to me, prescribed her an opening apozeme and to be let blood in the Country. Thus we dismissed her, but within few days after she returned to us again, the Ulcer having seised upon the *Uvula* and spread it self to the edges of the Palate. Upon sight thereof we disputed not of her disease, but considered of her cure. She had of late years been subject to great discharges of the *menstrua*, and was thereby rendered of a lax and weak constitution, and her body having been so lately purged and bled, there required no other preparation than of a warm room, which was provided with all expedition. For those Ulcers that arise on the interiour part of the Palate, soon corrode their way through, if the alarm be not taken from the inflammation that preceeds, a little mischief there being for the most part irrecoverable. To prevent which we gave her that night ℈j. of *calomel.* and repeated it so often as we might conveniently do, and prescribed her a *decoct. sarsæ* to drink with milk. We also prescribed her some of the Lotions set down in the Method of Cure, some whereof we cast up with a Syringe into her nostrils, and with other she gargled her throat often in a day. But the cure of the Ulcer was compleated by frequent taking of *merc. dulcis*. The *Gumma* also lessened, but she having recovered some measure of strength, and her chaps being already sore by the *calomel.* which she had taken, we gave her 2 doses of *Turbith*, beginning with 7 grains, and so higher, by which we raised the Salivation, and thereby resolved the *Gumma*. In the declining of the Flux we purged her with an Apozeme wherein was decocted *sena, polypod. rhab. agaric. turbith, jalap, &c.* with the addition of *syr. de spina cervina*. Then with drying diet-drink, sudorificks, *&c.* we finished the course, and cured her.

52. Observation of an *Ozæna*.

A young man was commended to my care having an *Ozæna* in his nose affecting the *septum* and *alæ*; it seemed to be most on the right side, with inflammation and great swelling. In undertaking the cure of these Ulcers you ought to be cautious in delivering your prognostick; for the bones and cartilages are soft and covered with a thin membrane, which being once corroded corrupts quickly, and the least defect in them leaveth a blemish in that part of the nose. The external inflammation is a shrewd sign that the Ulcer is deep, and consequently that the bones and cartilages are carious: therefore let not the rectitude of the part deceive you, for that may be supported by the swelling and crusty matter within, and upon the removal of them the nose or sides of it frequently sink; and if any deformity therein happen while they are under your cure contrary to your prediction, they will certainly impute it to your neglect or ignorance. In this Patient I suspected the right *ala* from the external inflammation, but promised my utmost endeavours, and began my work with injecting a *decoct. ex rad. althææ, sem. hord. cydonior.* and embrocated the external parts with *unguent. popul.* also applied a Cerote of the same; then let him blood, and directed a Clyster that evening. After his first sleep he took 25 grains of *calomel.* in *conf. ros.* and was purged the morning following with an infusion *senæ, &c.* afterwards I purged him with *calomel.* and *pil. Rudii*, till I had removed the fluxion off his Nose. After the crusty matter separated from within, I syringed and cleansed those Ulcers with one of the decoctions set down in the method of cure. Having thus disposed his Nose to cure, I gave him a few doses of *turbith*, and raised a salivation, but the ulcers cicatrized before he salivated, yet I fluxed him 17 or 18 days. In the declination of it I purged, and sweat him with *decoct. sarsæ*, and there appeared

peared a ſmall bending inward of the right *ala*, I ſuppoſed from the *Caries* had been in that cartilage; it was thruſt out to his own ſatisfaction by a ſmall hoop made by a bit of a ſearching candle painted of a fleſh colour, but after ſome few days he left that off, it not being worth the while.

53. Obſervation of a Node, and of Ulcers in the Tonſils.

One of a full Body, and ſtrong Conſtitution, who had been long diſeaſed with the ſeveral Species of the *Lues Venerea*, and been cured by me ſome months before of a *Herpes exedens*, came now to us with a large Node upon his ſhin of the right leg. He was purged by his Phyſician, and preſcribed a *decoct. ſarſæ, &c.* alſo *Antimon. diaphoret.* Embrocations and Emplaſters were applyed the while to reſolve the Node; but after ſix weeks courſe of Phyſick the Node remained almoſt as painful as before. Upon which conſideration it was concluded to lay it bare. I did lay it bare with the white Cauſtick, and divided the Eſchar to the bone, and at the next dreſſing raiſed the Eſchar off, then raſped the Node off, and dreſſed it dry, as hath been ſet down in Ulcers with *Caries*. The lips of the Ulcer I digeſted with *unguent. Baſilic.* applyed warm, and afterwards incarned the bone, and cured the Ulcer in the ſpace of two months, not without great pain to the Patient and trouble to me; whereas I might have reſolved it, and eradicated the malignity, and freed him of the *Lues* almoſt in half the time. Within one half year he came to us again, not complaining of his Leg, but with Ulcers in both his Tonſils. Theſe were certainly Venereal, and I concluded they would be ſo acknowledged, and that I ſhould have an eaſie work of theſe. But the Patient would not be confined within doors, nor admit of other Phyſick than a decoction of *ſarſa*, and a few pouders of *antimon. diaphoret.* Three quarts of the foreſaid diet-drink were allowed him daily. I have ſometime ſeen him drink it up in a Morning as faſt as if it had been *Tunbridge* waters. I once enquiring the reaſon why he drank them in ſuch haſte, he replyed, he was to dine with ſome good Fellows, and that he did it to make way for better liquor.

Thus he governed himſelf till the Ulceration increaſed, ſo that it was great pain to ſwallow any drink. He complained exceedingly to me that I could not at leaſt palliate thoſe Ulcers, whereas in truth I uſed my utmoſt endeavours by all the Medicaments I could deviſe; but they ſpread, and were accompanied with ſuch defluxion, as at laſt when he ſtrove to drink, part of it would guſh out of his noſtrils. Upon which conſideration the Phyſician was fetched, and a ſubmiſſion was promiſed to his Rules. The Cure was begun by a Clyſter, bleeding and purging, with an infuſed Potion, and the day after 25 gr. of *Calomel.* was given him in a ſpoonful of white bread and milk, and repeated daily or every other day, Clyſters or Purgatives being preſcribed between while to carry the matter downwards. By this method his Ulcers were diſpoſed to Cure, and he finding his throat eaſier had thoughts of dining abroad with his Friends. Upon notice whereof I got leave of the Phyſician to give him 14 gr. of *Turbith mineral.* which accordingly worked very well. I repeated it the next day to 16 gr. it likewiſe vomited him, and made him ſpit, and his Chaps ſwelled: The next day he perceiving that he fluxed, deſired the Phyſician would preſcribe him Phyſick to purge it off, which was promiſed him; but a day or two after the flux not riſing ſufficiently, I brought him a *Bolus* of a mixture of *turb. min.* with *conſ. borrag.* which increaſed the Salivation. He ſent for me, and offered me fifty pound to take it off; but I aſſured him there was no danger of his Life, and encouraged him to ſubmit to it chearfully. He did ſo, and ſalivated 18 or 20 days as plentifully as I ever ſaw any. The ſalivation declining, he was purged with an infuſed Potion, and Diet-drink was brought him, he promiſing us that he would keep his Chamber, and obſerve a ſtrict method in Diet, Sweating, *&c.* But he no ſooner found his Chaps cured, but he returned to his wonted liberty: and being told that he would moſt certainly relapſe if he did not

proſecute

profecute the Courſe preſcribed by his Phyſician, he replyed laughing, It's thy Courſe and not the Phyſicians, that he was very well, and if I would dine with him I ſhould be a witneſs of it. I took leave of him, and ſaw him no more in half a year; and about that time he became more extreamly diſeaſed: for it is moſt certain, that Mercurial Remedies ſerve only to diſpoſe theſe humours to be evacuated by decoctions of *ſarſa*, *&c.* with Sweating. How he was at laſt perfectly Cured, you may ſee in ſome of the following Obſervations.

54. Obſervation of an *Ozæna*.

A Woman of about forty years of Age, of a ſtrong Conſtitution, having been long diſeaſed with an *Ozæna*, was at length commended by Doctor *Bate* to the Cure of Doctor *Jaſper Needham* and my Self. The matter had corrupted part of the *Septum*, and other bones within her Noſe, and made its way externally between the ridge-bone and cartilages of the Noſtrils, and fouled the ſaid bone to the very brows. The griſtles being thus ſeparated from the foreſaid bone, and having loſt that part of the *Septum*, which ſhould have been their ſupporter, it ſunk downwards, leaving ſuch a breach, that the Injections which we caſt into her noſtrils with a ſyringe ſpurted out there. After we had thus diſcovered the evil quality of the Ulcer, we conſidered how to proceed in the Cure; and in regard of the difficulty of the Cure, and the length of time which might be required in the exfoliation of theſe bones, we reſolved without further diſpute to ſalivate her by Unction. To which purpoſe we let her blood, and purged her with an *infuſ. ſenæ*, *&c.* during which, *Errhina* were prepared of a lenient quality, ſuch as have been propoſed in the method of Cure, to looſen the crûſty matter; and we enlarged the external Ulcer along the ridge-bone, as far as it was carious, in order to the exfoliation of it. We digeſted thoſe lips, and dreſt the bone dry according to the method ſet down in the Treatiſe of Ulcers with *Caries*. After we had by *Errhina* and Lotions cleanſed the internal Ulcers of their filth, we then proceeded by deterſive Injections, as preſcribed in the method of Cure, and put up a *Canula* in each Noſtril made of a gooſe quill covered with a bit of *empl. diachyl. ſimp.* ſpread on a ſoft rag. Theſe ſerved to bear up the cartilages of the Noſtrils level with the end of the bone (which before ſtood as it were, looking over them) that they might be in a capacity (if it was poſſible) to unite with it: While we were thus diſpoſing the Ulcers to Cure, we proceeded in the anointing her Legs and Arms, and thereby raiſed a Salivation, which continued upon her more than three weeks. During that time the Ulcers cured within her Noſe, and the cartilages ſtood firm, and even to unite internally with the bone without the uſe of the *Canula*, but the bone there not being exfoliated, we continued the ſalivation longer by preſcribing *Mercurius dulcis*, *&c.* and all that while we took care of her mouth, that no inconvenience ſhould happen to her Jaws, *&c.* and kept up her Spirits with Broaths, Poſſet-ale and Cordials. After we ſaw the bones exfoliating we purged her with an Apozeme, and preſcribed *decoct. ſarſæ* with Sudorificks to ſweat her. During which the bone exfoliated, and the Ulcers cured with a Cicatrix not unſeemly. We then concluded our Courſe of Phyſick, leaving her more healthful and ſtrong than ſhe had been in many years.

55. Obſervation of Nodes, *Gumma* and Ulcers in *Os palati*.

A Man of about 36 years of Age had a large Ulcer on the roof of his mouth with a *Caries* on the *os palati*, alſo many Nodes, *viz.* a great one upon the left temporal muſcle reaching to that brow; alſo two on his right Arm, one whereof was on the *os humeri*, and the other on the *Ulna*; one very large upon the ſhin of the right Leg, and another on the out-ſide of his left: which latter was ſoft and inflamed, and was by ſome propoſed to be opened, but it ſeemed to me to be a *Gumma*. He had been long afflicted with the Diſeaſe, and was lately come out of a Salivation raiſed by *mer. dul.* in which he had ſpit very much. I touched the Ulcer with *aqua divina* warm, and adviſed the dreſſing

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it twice a day after the ſame manner; to the inflamed *Gumma* I applyed an *empl. è bolo* to prevent its apoſtemating. The reſt of the Nodes I deſigned to ſcatter by a ſalivation with unction. To which purpoſe I let him blood, and directed a Clyſter, and the next morning purged him with ℈j. *Calomel.* in a lenitive *Bolus*; and to diſpoſe him to reſt, I gave him ſome nights ℈j. *Calomel.* in ʒj. *diaſcord.* whereby the Ulcer in his palate was the better digeſted. Having thus prepared his Body for the Unction, I cauſed his limbs to be anointed daily till his Chaps ſwelled much; then I deſiſted, and adviſed Poſſet-drink, Broath, *&c.* to be alway ready for him to drink, and keep up his Spirits. There was alſo care taken to ſyringe and waſh his mouth. During his Salivation, the Ulcer in his palate caſt off a ſcale of a bone half an inch at leaſt in length, and preſently after cicatrized firmly; his pain ceaſed, and the *Gumma* reſolved, and all the Nodes diminiſhed much, ſave that on his ſhin; yet he did not ſpit a quarter ſo much in this Courſe as (he ſaid) he had done in the former raiſed by *merc. dulcis.* I continued him in the Salivation about twenty days, then purged him with the bitter decoction five or ſix days, and from that time kept him ſtrictly to his Diet-drinks, and with Sudorificks ſweat him, and proportioned his Diet more drying accordingly as his Chaps healed till I thought him cured, and then I gave him more liberty to nouriſh his body, and to drink the decoction of *ſarſa* with milk twice a day, and bathed him 4 or 5 days; and kept his body ſoluble with a lenient Electuary. Thus I diſmiſſed him, yet there remained ſomewhat of that Node on the ſhin, but it being without pain I ſuppoſed it would reſolve, as indeed it did within a fortnight after, and he continued well.

56. Obſervation of Nodes.

One of about thirty years of Age, of a full Body, having been long afflicted with Nodes and exceſſive pains on divers parts, eſpecially on his head, put himſelf into my hands for Cure. I deſigned a Salivation by Unction, to which purpoſe I prepared his Body by a Clyſter, veneſection and a purging Apozeme; then cauſed him to be placed near the fire, and to anoint himſelf from the ſoals of his feet to his groins, and ſo the arms and ſhoulders, and having put on his ſtockings, drawers and waſtecote he was laid in a warm bed, and with a draught of warm Poſſet-ale diſpoſed to a breathing ſweat. Thus I proceeded daily in the anointing him till I had waſted two pound of Unction, but he had formerly taken ſo much Mercury, that it ſeemed to be familiar to him, upon which account I proceeded in the anointing of him, but it ran downwards one night in a *Diarrhœa.* I was fetched to him early in the morning, and was informed he had had near ſixty ſtools. During the time I was with him they were mucous and bloody, with much pain, he having a *teneſmus* with it, which put him upon a continual excretion. I cauſed a Clyſter of milk with yolks of eggs to be caſt up, and preſcribed *decoct. C. C. calcinati* to be made, and drank with milk, to ſome of which I added a few drops of liquid *Laudanum.* I alſo injected *in ano* three or four ſpoonfulls of *ol. hyperici* with a ſyringe, and adviſed it to be often repeated to defend the interior coats of the inteſtine from excoriation. I preſcribed him a Pearl Julep and *elect. diaſcord.* as it is ſet down in the method of Cure, to be taken once in three or four hours; thus in four or five days the *Diarrhœa* ſtopped. Then I preſcribed him a *Sarſa*-drink, with an addition of milk till he had ſomewhat recovered his ſtrength, purging him in the interval with *elect. diacatholic. &c.* By this *Diarrhœa* he was freed of his pains, and of ſome of the Nodes. Thoſe which remained were much leſſened, and by a ſtrict Diet, *decoct. ſarſæ* and ſudorificks were quite reſolved, and he enjoys a good health to this day.

It may here be objected by ſome, that if this Perſon had been more purged or well bathed before the anointing, the Salivation would have riſen eaſier, and thereby

thereby the *Diarrhœa* might have been prevented. I do confeſs that the bathing doth much faciliate the raiſing of the Salivation, but we cannot have always that conveniency. Beſides, where we do bathe, theſe accidents have happened, and will befall any one of us in ſpite of all our endeavours. Yet I muſt tell you, when a *Diarrhœa* thus happeneth in the raiſing a Salivation, it renders your Cure certain if you proſecute the method as I here did. For whether the Mercury work upwards by vomit or ſalivation, or downwards by ſtool, it is not material, ſo the peccant humours be evacuated and diſpoſed to be carried off by Sudorificks, *&c.* But if the Patient grow froward upon ſuch an accident, and will not ſubmit to a regulation in Diet, Purging, Sweating, *&c.* the humours do again ferment and render the Cure more difficult.

57. Obſervation of *Ozæna*, Nodes, and *Gummata*.

One of about forty five years of Age, having been long afflicted with the *Lues* in its moſt inveterate Symptoms, Nodes, *Gummata*, and an *Ozæna*, and had paſſed through many courſes of Phyſick, came to me extreamly extenuated. He had one Node upon the *Lambdoïdes* very great, and another upon his right eye-brow; others upon his arms and legs. I began with the letting him blood, and ſent him a Clyſter that evening. I ſyringed his Noſe with *decoct. hordei, rad, althææ, ſem. cydon*, &c. and after I had cleanſed it of its cruſty matter (with which ſome bones came forth) I daily injected ſome of the Lotions preſcribed in the method of Cure. I bathed him five or ſix times, and the while kept his body ſoluble by Clyſters, or by a lenitive Electuary, and allowed him boiled Mutton, Veal or Chicken for his Dinner, and a couple of new laid Eggs for his Supper, a ſmall Ale for his drink. I alſo preſcribed him a grain of *Laudanum*, or ſome anodyne draught to appeaſe his nocturnal pains. After I had done bathing him, I cauſed his Legs, Arms, Shoulders, Spine, and Hips to be anointed daily, and ſweat him in a warm bed with a draught of Poſſet-drink. After he began to ſpit I anointed him more ſparingly, only his Legs and Arms, and when I ſaw his Chaps ſwelled ſufficiently, I forbare the anointing, and kept him to his Poſſet-drink and Broath, waſhing his mouth with *decoct. hordei, rad. althææ, liquiritiæ, &c.* He ſalivated very well near a month, but before he had ſpit fourteen days the pains diminiſhed, and the Nodes leſſened, and that filthy matter ceaſed to diſcharge out of his Noſe: Alſo a *Gumma* which ſeemed ready to burſt dryed up. In the declination of the flux I put him into a ſtrong *decoct. ſarſæ, &c.* with Milk, and nouriſhed him with good medicated Broaths. As his ſtrength increaſed, I purged him with the bitter decoction ſome days, and after his Chaps healed I kept him ſtrictly to the *Sarſa*-drinks without the Milk, and ſweat him with *antimon. diaphoret. gum. guaiaci, bezoard. orient.* and ordered his Diet as drying as he was capable of, purging him as cuſtomary once in four or five days. Thus in the ſpace of eight weeks the *Ozæna* was perfectly cured, and all the Nodes reſolved: but notwithſtanding he complained of pain in all his Limbs, and was ſo weak that he was ſcarce able to go, and bemoaned his condition, ſuppoſing he ſhould never be cured. I was of an Opinion that he was cured, and that thoſe pains proceeded meerly from the emaciation of the muſcles; but I referred it to a conſultation, where it was declared poſitively, that he was not Cured, and that he ought to ſalivate again. Theſe propoſals diſmay'd the Patient, and diſturbed me not a little, for in truth he was too weak to ſalivate. I perſiſted in my former Opinion, and prevailed with the Patient to retire two or three miles into the air, and there to drink a decoction of *Sarſa, &c.* with Milk, and to give himſelf liberty to feed upon meats of good nouriſhment, and adviſed him to bathe in milk and water ſometime. He did ſo, and I ſupplyed him with papers of ingredients to make the decoction, alſo with a lenitive Electuary of *Caſſia, tamarinds, manna*, &c. to

keep his body ſoluble. In a few weeks he grew fleſhy, his pains waſted, and from that time he enjoyed a good health many years.

58. Obſervation. One about twenty eight years of Age was afflicted with an *Ozæna* of an old date. It had perforated the *ſeptum*, and caſt forth ſome rotten bones, one whereof he ſhewed me. He had alſo Nodes on both his legs and on his right arm. He was emaciated by reaſon of his continual pains, and the much Phyſick he had unſucceſsfully taken. I injected a *decoct. hordii, &c.* into his noſtrils, and after the cruſty matter ſeparated I preſcribed him an Errhine to ſnuff up his noſtrils often in a day. And having reſolved to ſalivate him by Unction, I diſpoſed his body thereto by Clyſters, Lenitive Bolus's, (to which latter I added *calomel.* to take off his pains) and preſcribed him *decoct. ſarſæ, &c.* with milk, alſo a liberty in diet, and bathed him the while. Having thus ſomewhat recruited his ſpirits, I cauſed him to be anointed, legs, arms, hips, and ſhoulders, till I had raiſed a Salivation. Then I kept him to Poſſet-drink and Broath. I alſo allowed him a pint of Ale daily, ſometimes burnt Wine or other Cordials by which he was enabled to ſalivate near a month. During that time the *Ozæna* cured, and ſome of the Nodes reſolved. As the Salivation declined I purged him with the bitter decoction, and then put him into a *decoct. ſarſæ*, and ſweat him with diaphoreticks, and purged him once in four or five days, he obſerving the while a ſtrict diet. After all I bathed him again a week or ten days, and permitted him a nouriſhing diet, and kept his body ſoluble *cum elect. noſt. laxativo ex caſſia, pulp. tamarind. manna, &c.* Some of his Nodes remained till I bathed him; but if they had not then reſolved, yet I ſhould not have doubted of his being well cured. For it doth ſometimes happen that great Nodes dry and harden into ſuch an *exoſtiſis* as will not yield to any remedy. And indeed they being without pain we need not to be ſo ſollicitous in their removal, for beyond Sea I have ſeen ſome well cured, the Nodes continuing upon their legs knotted like a Crab-tree-ſtick.

59. Obſervation of *Lues Vener.* compl. with Cancer, *&c.* A Woman of about 50 years of Age, of an ill habit of body, having paſſed through various courſes of Phyſick, was brought to me complaining of pain in her arms, and Nodes on the back of both her hands; alſo a cancerous tumour on her right breaſt. She importuned me to put her in a courſe of Salivation by Unction, and took a lodging near me. I thought it neceſſary enough for her, and told her I would prepare her body for it, and conſult her Phyſician in the manner of ſalivating her. Accordingly I let her blood, then purged her with a ſolution of *manna* and *cremor tartari* in poſſet-drink, and bathed her four or five times; then gave her alternately two or three doſes of *calomel.* to try how the Flux would riſe. But ſhe growing impatient in the delay, ſent for a Phyſician, to whom ſhe related the original of her Diſeaſe, and that ſhe had taken the ſpitting Pills formerly unſucceſsfully, therefore deſired to ſalivate by Unction. Some objection was made againſt it, as doubting her *viſcera* were naught. But he complyed, and promiſed to viſit her as occaſion ſhould require. I ſent her a pot of Unction the next day, wherewith her legs and arms were anointed, and ſhe returned to her warm bed and was diſpoſed to a breathing ſweat by a draught of Poſſet-drink. By this method the Salivation was raiſed and ſhe fluxed moderately about 20 days, during which her pains remitted, the Nodes reſolved, and ſhe recovered the uſe of her hands. The Cancer lay alſo quiet. The Salivation declining ſhe was purged with the bitter decoction, and ſome days after drank a *ſarſa* drink, and ſweat. In the going off of her Flux ſhe complained of the ſhortneſs of breath, and was afterwards ſubject to fainting. Whereupon her Phyſician was conſulted, who ſuppoſing it hyſterical preſcribed as followeth: ℞ *Galbani, ſagapeni an.* ʒj. *aſæ-fœtid.* ℈ſ. *caſtor.* ʒj *balſ. Peruv. q. ſ. f. pil. quarum capiat* ʒj. *omni nocte.* ℞ *Galbani*

ʒvj.

℥vj. *fiat emp. pro umbilico. Superbibat poſt pilulas julapii ſequ.* ℥iij. ℞ *Aq. brion. comp.* ℥ij. *pulegii, mirabilis, hyſſopi, an.* ℥iij. *tincturæ croci* ℥ij *ſacchar. albiſſ.* ℥ſs. *miſ. f. julapium.* After ſhe had proceeded in this courſe eight or ten days, ſhe complaining of her ſtomach and of an offenſive ſmell ſhe thought aroſe from thence, her Phyſician preſcribed her as followeth: ℞ *Salis vitrioli* ℈iij. *capiat ſtatim in poſſet alâ: ſi ſemel tantùm vomuerit, capiat* ℈j *ejuſdem in eadem poſſet alâ,* and ſo to repeat it the third time if her ſtrength would bear it. She did ſo, and was laid to reſt with this following draught: ℞ *Laudani gr. j. aq. menthæ* ℥iſs. *cinnamomi pulveriz.* ℥ſs. *diaſcordii* ℥ij. *f. hauſtus horâ ſomni.* The day following the Phyſician found her much relieved, and preſcribed her this decoction: ℞ *Sarſæ* ℥iij. *ſantali albi* ℥ij. *chinæ* ℥iſs. *guaiaci* ℥ſ. *digere horas ſex in aq. com.* ℔viij. *vaſe clauſo, dein decoqu. ad medias, addendo ſub finem ingredientia decoct. pectoralis. Bibat copioſe & frequenter, addendo ſingulis hauſtibus mixturæ ſequentis cochl. j. vel. ij.* ℞ *Aq. limac. brion. comp. an* ℥ij. *tinct. croci* ℥ß. *ſp. caſtorei* ℥iſs. *miſ.* This potion was alſo preſcribed her 3 or 4 days after: ℞ *Tamarind.* ℥ſs. *coqu. in aq. com. ſub finem addendo ſenæ* ℥iij. *rhab.* ℥ij. *ſem. aniſi* ℥ſs. *cape colaturæ* ℥iv. *mannæ* ℥vj. *ſyr. de rhab.* ℥j. *ſyr. de ſpina cervina* ℥j. *f. potio.* By theſe preſcriptions ſhe ſomewhat recovered, and removed from thoſe lodgings to others more airy in the ſame ſtreet. And there another Phyſician was conſulted and joined with the former: he approved of what had been done, and gave hopes of her recovery; and together they preſcribed as followeth. ℞ *Gum. galbani, ammoniaci, myrrhæ, balſ. Tolut. an.* ℥j. *croci gr.* iv. *cum opobalſ. Giluaditui* ℥ſs. *f. pil. quadruplo deaurandæ: cap. bis tèrve quotidie.* ℞ *Gum. guaiaci cathartici* ℥j. *ſyr. è capil. Veneris q. ſ. fiat mixtura mollis, quam capiat tertio quoq; manè ad quatuor vices.* ℞ *Aq. ceraſ. nigr.* ℥vj. *è flor. paralyſ. aq. cinnam. hord. an.* ℥ij. *margar. præparat.* ℥ij. *ſacchar. cryſtal.* ℥ij. *miſ. f. julapium, de quo bibat ad placit.* Some while after ſhe removed nearer the Country for the benefit of freſh air, and to drink Aſſes milk, which ſhe had already begun to do, and might have recovered if her *viſcera* had not been all rotten.

60. Obſervation of Nodes and pains.

A poor fellow aged about 50 years had grievous pains in his head, and divers nodes and *gummata* in ſeveral parts of his body. He had lately come out of a courſe of Phyſick, and was ſo waſted as he could ſcarce ſtand, and had loſt the nails of his fingers and toes. I directed him a Clyſter, and that night ſent him an opiat to calm his pains and diſpoſe him to reſt, *viz.* of *laudan. mer. dul. gum. guaiaci, &c.* as is ſet down in the method of cure, and repeated it as occaſion offered; and preſcribed him a *ſarſa* drink with milk. But after 2 or 3 days obſerving that he was much oppreſt in his ſtomach, nauſeating all that he took, I gave him a vomit of *infuſ. croc. metallor.* with *oxymel ſcillit.* by which I emptied it of much viſcous flegm. From that time he recovered his appetite, and by good nouriſhment and mitigation of his pains he recovered to a tolerable meaſure of ſtrength. I then cauſed him to be anointed, legs, arms, hips and ſhoulders, and repeated the anointing dayly till I had raiſed a ſwelling in his chaps. He ſalivated well, and was kept to warm Broath, Poſſet-drink, and ſometime Ale and burnt Wine. During the ſalivation he fainted often, and was ſeiſed twice with convulſions, and with much difficulty I kept up his Spirits: but he got through it by the help of good Cordials, *aq. theriacalis, &c.* In the declining of the Flux I purged him with the bitter decoction, and finiſhed the cure with *decoct. ſarſæ*, ſweating and drying diet and purging. Paſſing by this man's houſe one day in the company of Dr. *Walter Needham*, we went in, he was working in his trade, he ſhewed us his legs and arms, there was not a node left; he alſo ſhew'd us new nails thruſting out, the Patient then declaring himſelf well, and indeed ſo he continued a month or two, and then pains began, nodes and *gummata* alſo aroſe. I attempted the cure by

crude Mercury as it is usually given by some under the name of the Blew Pills with a strong decoction of *Sarsa, rad. bardanæ, fol. saponariæ*, and with *laureola*. Indeed I consulted several that pretended great matters in the cure of this Disease, and omitted nothing whereby I could hope to relieve him, applying also Emplasters, and caustical Medicaments to the Nodes, by which I did resolve the biggest and most painful of them: but the malignity increasing, the Patient made it his request to me to salivate him again by unction. Whereupon I let him blood, and directed a Clyster, then bathed him four or five times, and raised a salivation by only anointing his Legs and Arms according to his desire. He salivated very well, and during the salivation he was freed of his Pains and Nodes, and by the prosecuting the Course by diet-drink, sweating and purging, he seemed perfectly well; but yet he relapsed. I afterwards perceived his Wife had been all the while infected with the same disease; but whether he got it from her, or through neglect of observing this latter Course, his necessity in following of his Trade constraining him to be daily abroad and in his Shop, (and without a strict observance in that Course you will scarce cure the lesser Species of the *Lues*) I contented my self in the expences I had been at, and left him to others.

61. Observation of *Ozæna* and Nodes.

A Man of about thirty years of Age, came out of a long Course of Physick to me, having an old *Ozæna* whereon some bones had cast off: he had also pains in divers parts, and several Nodes. I resolved to salivate him by unction, to which purpose I let him blood, purged him, and anointed him, Legs, Arms, Hips, Shoulders, *&c.* by which in few days I raised a salivation, kept him to Posset-drink and Broath, and took care of his mouth. His Nose was also dressed daily, as hath been shewed in the like case. In the declination of the Flux, I purged him with the bitter decoction, and prescribed a strict drying Diet, *decoct. sarsæ*, purging and sweating, and dismist him cured of the *Ozæna*, and the Nodes and pains resolved. But some months after he relapsing came to me again, and acknowledged that he had not been so regular in his Diet as I had directed (and in truth I had heard he had bragged of it) and that he would enter into a new Course of Physick. I let him blood, and purged him six or seven days with the bitter decoction, then vomited him with *turbith minerale* three or four times, prescribing Clysters between while. After I had thus heated his Chaps, and disposed the matter for Sudorificks, I put him into a decoction of *sarsa*, and with *merc. diaphoret.* sweat him twice a day, and kept him to a strict drying diet, and by this method I cured and secured him from relapse; and so shall do as many as will submit to it: an instance whereof may be seen in many of these Observations.

62. Observation of an *Ozæna* and Ulcers in the Tonsils, and Nodes.

A Man of about thirty six years of Age came to me with an *Ozæna*, Ulcers in both the Tonsils, and Nodes, with pains in several parts of his Body, which together had extreamly emaciated and weakened him. I syringed his Nose with a lenient Lotion according to my custom, and afterwards prescribed some of the other *Errhina* for daily detersion. I also dressed the Tonsils with *lac sublimati*. In order to his Cure, I let him blood, and prescribed a Clyster, and that very night sent him ℈j. *merc. præcipitat. albi*, which he took in a spoonful of white bread and milk, and repeated the giving of it three or four nights after one another, carrying it off by Clysters daily. During which I allowed him medicated Broaths, Posset-ale, and a Pearl-julep. After I had thus disposed his Ulcers to digestion, so as that he was in a capacity to eat meat, I permitted him to eat such as was of good nourishment, and prescribed him a decoction of *Sarsa, &c.* with an addition of Milk to drink dayly, and every other morning gave him a few grains of *Theriac. metallor.* in ℥ß. *conf. melissæ*, and thereby vomited him moderately, and purged him once or twice, and continued the use

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of Clysters accordingly as I saw cause, and bathed him often, I suppose eight days. Thus I removed his pains, and cured the Ulcers, and purposed to have put him into a strict Diet, and to have finished the course by Sudorificks, *&c.* but some of the Nodes remaining, and the Patient having long before met with great difficulty in his Cure, earnestly importuned me to salivate him by unction alledging it the sure way to prevent relapse. I seeing his desire, and supposing it might be reasonable, did comply with him, and caused his Legs and Arms to be anointed daily till his cheeks swelled. Then I kept him to posset-drink and Broath, and took care in the washing his mouth. He salivated well about sixteen or seventeen days, but then growing weak and faint, I caused his feet and legs to be bathed with warm water, and fresh linen to be put on, and by Clysters disposed the matter downwards, and kept up his Spirits with Cordials. Having thus refresht him I purged him proportionably to his strength, and finished the Cure by a course of drying diet, *decoct. sarsæ*, Sudorificks, *&c.* in 3 weeks. But he being extreamly pained in all his Limbs suspected his Cure, but the Nodes being resolved, and the Ulcers so long before cured, I encouraged him to take his wonted nourishment, supposing these proceeded from the emaciation of the muscles; yet I prescribed him a medicated Ale, and advised bathing a few days: he did so, and found as his strength recovered so his pains lessened. He removed afterwards to *Paris*, where he enjoyed his health and a quiet mind, till one night upon change of lodgings he was bitten with Musketoes, and seeing his face next morning so swelled, he consulted Physicians and Chirurgeons, who would needs perswade him it was Venereal, but it proving otherwise he escaped the grand Course, but was bathed often.

63. Observation of a *Gumma*.

A Woman of about forty six years of Age was commended into my hands. The hairy scalp on the *os frontis* had been some while ulcerated, and the bone corrupted the compass of a broad shilling. I laid it open by a circular incision, and dressed it up dry. The second day after I took off the dressings, and saw the bone full of a loose flesh arising out of the cavities. I scraped the bone, and dressed it up with *unguent. Ægyptiac.* warm, and digested the lips the while. Having thus exposed the bone to exfoliate, I began in the internal Cure by bleeding and purging, and prosecuted it by salivating her with *Turbith mineral.* and in the declination of the flux I purged her with the bitter decoction, and finished the course by a *decoct. sarsæ*, drying diet and sweating, and in the while exfoliated the *cranium*, and cicatrized the Ulcer.

64. Observation of a *Gumma* resolved.

A young Woman came to me with an inflamed Tumour upon the *Fibula* of her right Leg; it seemed to have matter in it, but upon a farther enquiry I discovered it a *Gumma*. I applyed an Emplaster *è bolo* to defend it from fluxion, and caused her to be let blood. The next day I purged her with *decoct. sennæ, &c.* and prescribed her an anodyne draught that night. The day after I purged her with *extract. nost. mag. & calomel.* and the next day sent her 10 grains *Turbith min.* in a Pill, which vomited her five or six times. The next day a Clyster was administred, and the fourth day after *Turbith* again; and so repeated the *Turbith* with Clysters proportionably: and in the interval purged her sometimes with the bitter Apozeme to avoid salivating. By this means I resolved the *Gumma*, and perfected the Cure by Diet and Diet-drink, Sudorificks, *&c.*

65. Observation of an Ulcer, with *Caries* of the *os frontis*.

A poor Fellow came to me with a Carious Ulcer on the *os frontis*, which had been of a long continuance: the bone was white, yet corroded much, and filled with an *Hypersarcosis*, as most of these sort of Venereal Ulcers are. He was let blood, and purged four or five days with the bitter decoction, and took every other night ℈j. *calomel.* After I had thus purged him, I laid open the Ulcer by a circular abscision, and dressed it up dry. The second day I opened it again, and scraped the bone and loose flesh off, and applyed dossils prest

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out of the tincture of Vitriol, and dreſſed up the recent lips with the digeſtive, *ex terebinth. cum vitello ovi.* After I had thus digeſted the Ulcer, and diſpoſed the bone to exfoliation, I raiſed a ſalivation by a few doſes of *Turbith minerale*, during which his Landlady diſcovering his Diſeaſe, would not permit him to lodge longer in her houſe. Whereupon he removed unknown to me to a Common Ale-houſe ſome diſtance off. Walking thither in a cold winter day to a Lodging as cold, the ſalivation checked, and a ſhortneſs of breath with frequent fainting followed, and increaſing upon him he died in ſpite of my endeavours, and thoſe I conſulted.

66. Obſervation of a *Caries* in the *Os frontis.*

A Man aged forty four years, of a Plethorick Body, half a year after he had been Cured of a Chancre, began to complain of a pain in the fore-part of his Head. A Tumour appearing in that part ſome time after, he conſulted a Chirurgeon, who open'd it by inciſion, and dreſſed it with a doſſil of lint, and left him to his Chirurgeon to cure: But in progreſs of time the Ulcer inlarging, and the bone growing more carious, the Patient conſulted another Chirurgeon, who told him it was the work of Nature, and that in time the bone would caſt off. The poor Man believing what was ſaid, took care to have it dreſt accordingly by the ſame young Chirurgeon, till the *Caries* had infected the bone almoſt the whole length from the Coronal ſuture to the brows. And then he came to me for Cure, and having lodged himſelf near me, I went to dreſs him, and ſaw a great diſcharge of a fetid matter, and the lips of the Ulcer lying hollow over the rotten bone. I cut them off round ſo far as the bone lay carious under them, then dreſſed up the wound and bone with doſſils of dry lint, *&c.* Then knowing that there was no hopes of curing him without the uſe of Antivenereals, I ordered a Clyſter that evening, and began the next morning to purge him with an infuſion of *ſena rhab. &c.* (for I had permitted him to bleed ſufficiently in the extirpation of the callous lips.) The third day I renewed dreſſing, and ſaw a pulſation of the *dura mater* through ſeveral ſmall apertures in the carious bone. Upon ſight whereof I had thoughts of ſetting on a Trepan, but there being no immediate danger, I proceeded with Mercurials, and gave him ℈j. *Calomel.* that night, and purged it off the next morning with a draught of the bitter decoction, and repeated the ſame apozeme four or five days, giving him *Calomel.* every other night. Whilſt I was purging him the matter abounded much, and flowed downwards into a remaining *ſinus* between his brows; to prevent which, I made a bandage with good compreſſion on that part, and dreſſed the rotten bone with doſſils preſſed out of *ſp. vini*, and continued that method of dreſſing daily. And that I might haſten the exfoliation and cure of this Ulcer, I gave him the morning after *Turb. min.* gr. xij. which both vomited and purged him. I repeated it once in two or three days till I had raiſed a ſalivation, during which the ſinuous Ulcer healed by agglutination, and the matter accordingly leſſened daily, and loſt its fetid ſmell; the bone alſo caſt off in its circumference, and looſened in the middle, ſo that I brake thoſe forementioned apertures into one another, and raiſed up one piece of the *cranium* conſiſting of both tables, and made way for the Callus to thruſt off the remaining ſides of the bone, part whereof caſt off ſoon after, and the Ulcer incarned, and is now cicatrizing. There was a Node upon the right jaw, which is partly reſolved. The Patient is yet in a Courſe of Diet-drink, ſweating and purging, in order to the confirmation of the Cure, which I think there is no doubt of.

67. Obſervation of Ulcers and Nodes, with the ill conſequence.

A Man of about thirty four years of Age was commended to my Care. He had ſeveral Nodes on his Legs and Arms, one whereof upon his right Leg was big and much inflamed. He had alſo ſome breakings out about ſeveral parts of his body, and *Caries* in both his jaws. He had paſſed through many hands, and came then out of a ſalivation raiſed by ſome Mercurial Pill, and (as he ſaid) had ſpit be-

between 4 and 5 quarts a day the ſpace of three weeks. I deſigned ſalivation by unction. In preparation thereto I let him blood, purged and bathed him, then cauſed his Legs and Arms to be anointed till his Chaps ſwelled, and the ſalivation aroſe moderately; then I put him to the drinking Poſſet-ale and Broath, and took care of his mouth. All things thus likely to ſucceed well, I having a Command to make a Journey of four or five days into the Country, recommended him into careful hands, purpoſing at my return to raiſe the ſalivation higher, if there were occaſion. About the ſixth day after, at my return, I found my Patient much indiſpoſed with a ſhortneſs of breath, and frequent fainting. The ſwelling in his Face was ſunk, yet was his mouth much ulcerated, and his jaws ſo contracted, that he could ſcarce open them to take in a ſpoonful of broath. His ſpitting checked, his body coſtive, and the urine he made was little and high coloured. I cauſed a Clyſter preſently to be adminiſtred, and ſent for a quart of *aq. antiſyph.* of which I gave him ſome, and adviſed the taking it once in two or three hours. I ſyringed his mouth with *decoct. hordei, liquiritiæ, & mel. magiſt.* and put a folded rag between his jaws, which I had before adviſed his Nurſe; but ſhe was one of his chuſing, and ignorant in this work.

I alſo adviſed him to hold ſome of the gargle often in his mouth as hot as he could endure it, and made up a mixture of ſome *mel magiſtralis* with *ſp. vitrioli* to dreſs ſome other of the Ulcers which required deterſion. I alſo preſcribed him a Lambitive of *ol. amygd. dul.* &c. to help expectoration. The next day I purged him with a *decoct. tamarind. caſſiæ fiſtul. ſenæ*, &c. to which was added *ſyr. de roſ. ſolut. manna, ſyr. de ſp. cervina*, and repeated it the ſecond and third days. It wrought moderately, and ſomewhat relieved him. In the waſhing his mouth with a ſyringe forcibly, I put him upon excreting a great quantity of a filthy matter, amongſt which there ſeemed ſomewhat like that we call purulent. I not imagining whence it ſhould come, indeed never having ſeen the like, conſulted Doctor *Denton* who adviſed me to purge him with *Barnet*-water a quart or more at a time, with a ſpoonful or more of *ſyr. de ſpina cervina* in the firſt draught, and ſo to proceed accordingly as it paſſed. I did ſo, and obſerving it to paſs both by urine and ſtool; I repeated the uſe of it five or ſix days, and the while kept up his ſtrength with good Broaths, *&c.* After I had thus emptied his bowels, that diſcharge of matter ceaſed, and he recovered. Then I bathed him, and preſcribed him medicated broaths, *&c.* alſo *decoct. ſarſæ*, and kept his body ſoluble by lenient purgatives once in three days.

By the frequent ſyringing and gargling his mouth, and dreſſing the Ulcers I healed that, but by reaſon of the contraction of his Jaws, the ulceration and *Caries* increaſing upon the old diſeaſed parts of the Jaws, ſome of his teeth dropt out, and at laſt I was forced to cut the contracted Callus, and that way enlarged his Jaws. Whilſt theſe various accidents affected the *Viſcera* internally, his Nodes and Pains diſcuſſed, his skin alſo was freed of its foulneſs, and he ſeemed perfectly cured; yet to ſecure him from relapſing, I prevailed with him to continue his Diet-drink, and to ſweat with *antimon. diaphoret. &c*, and to purge between while. To which purpoſe I ſupplied him with Materials, and he retired a few miles out of Town, and proſecuted the Courſe, and came from thence to Town well fleſht, and enjoys a good health to this day.

68. Obſervation of *Lues Venerea*, with complication of Diſeaſes.

A Man aged forty eight years, having been long diſeaſed in the Country, and taken much Phyſick unſucceſsfully, was afterwards adviſed to the *Bath*, whither he went; but thoſe waters not being ſuitable for his Diſeaſe, he returned to *London* much emaciated, and very ſick and weak, and conſulted two Phyſicians and my ſelf. He had Nodes upon his Arms, Hands, and Fingers, and indeed had no uſe of them. His other Limbs were affected with pain. He had

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an *Ozæna* of an old date, whence ſeveral rotten bones had caſt off. His Jaws were alſo carious. There was ſmall hopes of his recovery, yet we were obliged to attempt it ſome way, and in order thereto Lodgings were provided for him near me, and we began his courſe of Phyſick with an *infuſ. ſenæ, rhab. &c.* but his ſtomach was ſo weak that he had of long time nauſeated all ſorts of ſuſtenance, and vomited this potion. Upon notice whereof we preſcribed him *ſal vitrioli*, and emptied his ſtomach of much viſcous flegm. A Clyſter was adminiſtred that evening, and we laid him to reſt that night with an anodyne draught. The next morning he was let blood in the Arm, and purged the day after with a ſolution of *manna, crem. tartar.* in a draught of Poſſet-drink, and the next day we bathed him in water luke-warm: he fainted in it, and was ſeized with a ſhortneſs of breath after he was in bed, which laſted about an hour; yet we proceeded in the bathing him daily the ſpace of a week, and relieved him in thoſe fits with Cordial-waters, and kept his body ſoluble by Clyſters. Having thus prepared him for other remedies, we preſcribed him *calomel.* but which way ſoever he took it, he vomited ſoon after. We then ſent a pot of *unguent. Neapolit.* by a ſervant who rub'd part of it on his Arms, Thighs and Legs, and diſpoſed him afterwards to a breathing ſweat with a draught of Poſſet-drink: Thus he was anointed ſeveral mornings, till his chaps ſwelled and his mouth ulcerated. Then we took care in waſhing his mouth with lenient decoctions, and nouriſhed him with medicated Broaths and Poſſet-ale, permitting him ſometime to take a little burnt Wine, *aqua theriacalis mag.* to ſupport his ſpirits. By which method he ſalivated 26 days, and was freed of his pains; the nodes alſo reſolved, and he recovered the uſe of his hands, and the rotten bones caſt off from the *eithmoïdes*, &c. The Salivation declining, the bitter apozeme was preſcribed him. Decoctions of *Sarſa* with an addition of a little *aqua mirabilis* was alſo allowed: But our Patient had been obſtinate and ungovernable in the whole courſe, and was now at laſt ſo averſe to every thing was preſcribed him, that in truth he neither purged, drank his diet-drink or ſweat as he ought; and through that omiſſion the ſerous humours abounded, and began firſt to ſwell his Legs, then his Thighs, and ſomewhat his Belly. His Arms and Hands afterwards ſwelled, and at laſt his Eye-lids and Face, and an Itch brake out over all his body, which by his rubbing and ſcratching excoriated the skin in ſeveral parts, and was very vexatious to him. At the firſt appearance of theſe anaſarcous ſwellings, various internals were preſcribed, but he only took Cordial-waters in which we infuſed ſometimes purgatives, whereof this following was one: ℞ *Spec. diamoſch. amari* ʒiſs. *Aloes* ʒj. *ſp. vini* ℔j. *eliciatur tinctura ſ. a. capiat cochlear.* iij. *pro vice, repetend. ad placitum.* Some ſuch like tincture was alſo added to *aq. lumbricor. &c.* We having no other way of purging him, the ſeroſity increaſed, and overcoming the natural heat he dyed.

69. Obſervation of the Tonſils, *Ozæna* and Nodes.

One of a ſtrong conſtitution having been diſeaſed ſeven years with the various ſpecies of this *Lues*, and had paſſed through many hands beyond Sea and here, and hath been taken notice of by me in one of the former Obſervations for his irregularity in that courſe of Phyſick, came to me again within a year after lamentably afflicted with Ulcers in his Tonſils, Palate and Noſe, *&c.* (I being then impriſoned by the Fanaticks in *Lambeth* houſe) he conſulted others, but came afterwards to me, deſiring my opinion of his Diſeaſe, and what hopes I had of reſtoring thoſe ulcerated parts to their former uſe and ſhape. The Ulcers in the Tonſils and Noſe were large, and accompanied with inflammations and tumour, and thereby occaſioned a great difficulty in ſwallowing his drink, the moſt part of it running out at his Noſtrils. On the ridge of his Noſe there was a *herpes exedens* with a *caries* in that bone,

bone, and upon the left side of his Nostril another, which had penetrated through that cartilage, and an *ozæna* within which had corrupted part of the *ethmoïdes* and the lower part of the *septum*, insomuch as there only remained the exteriour skin to divide the Nostrils, and that being ulcerated could not defend it self long from being eaten in pieces. He had also some Nodes upon his Legs, but the Ulcers in his Nose were they which threatned the danger, yet there were hopes of curing them if a course were speedily taken. He returned somewhat satisfied, and the next day sent for two eminent Physicians, and procured leave for me of my Keeper to meet them. I represented the condition of the Ulcers to the Physicians, and proposed to them the raising a Salivation by unction as the speediest way to prevent the farther erosion. They had no great opinion of Salivating, but did comply with me, and promised the Patient to visit him often during the course.

The Patient had been let blood, and purged by their prescriptions; upon which consideration I prescribed him ℈j. *Calomel.* in a spoonful of white bread and milk to take that night, and advised them to bath him the next day; also to repeat the *Calomel.* for some nights, hoping thereby to check the corrosive quality in the Ulcers; and I also advised to repeat his bathing in order to the salivation I intended by the unction. Care was also taken to keep his body soluble by Clysters, or lenient Bolus's. I directed one of my Servants to dress the Ulcers, some with lenients, and others with detersives.

Whilest the Ulcers were thus disposing to Cure, my liberty was procured, and I again attended the Patient; and having prepared all things ready, began to raise the salivation by anointing his Legs, Arms, Shoulders, Spine and Hips, and repeated it dayly, and afterwards put him into a warm bed, and disposed him to a breathing sweat, with a draught of butter'd Ale to gratifie his palate. The rest of the day he drank Posset-drink, *&c.* During the anointing, some of the Lotions were syringed twice or thrice a day into his nostrils. Gargles were also used to wash his throat, and the Ulcers of the Tonsils and *uvula* touched with *lac sublimati.* Those Ulcers without were deterged and smoothed fit to heal, as Nature should be disposed thereto. And that little bit of skin which served to divide the nostrils likewise healed.

I continued anointing this Patient till I had wasted near three pounds and a half of the unction, yet his Chaps would not swell, nor did he spit a quart in 24 hours. But during this anointing he was freed of his pains, and the Ulcers cured as well as I could desire. But how far this would serve to eradicate such an inveterate *Lues*, I much doubted. The Physicians seemed also to distrust my undertaking, considering I did not salivate him as I had proposed. The Patient also became weary of the frequent anointing. Upon which considerations I was somewhat troubled, and endeavoured by Clysters to move it downwards, wishing it would end in a *Diarrhœa*; but it not moving that way, nor any other way disturbing him, I concluded his not salivating to proceed from the quantity of Mercury he had formerly taken, and that possibly it was become habitual to him. Supposing it might be so, I caused some Mercurial Emplasters to be applyed to his Feet, Legs and Arms, and sweat him again in his Bed moderately. And after these, seeing the Salivation not yet arise, I gave him *Turbith min.* gr. xvj. in a Pill with *conf. boraginis.* It vomited him twice or thrice inconsiderably. But from that time he began to be fevourish and faint, and the matter much indisposed, by which I judged it necessary to purge off. To which purpose a Clyster was administred, and the Plasters taken off, and fresh linen put on. He took the bitter decoction five or six days, making large evacuation that way. During which his mouth was frequently washed, and disposed to Cure; and I put him into a *decoct. sarsæ*, and strict diet, sweating him with *antimon.*

diaphoret. &c. as before hath been preſcribed in ſuch like caſes. I continued him a month in this Courſe, and being then ſatisfied that he was well Cured, and ſecured from further relapſe, the Phyſicians were ſent for, and ſaw the ſeveral Ulcers cicatrized; that on the ridge of his Noſe where the bone had been bare, was healed ſmooth without any viſible exfoliation. If the Cartilage on the ſide of the Noſtril did exfoliate, it was caſt off into the Noſtril, for the cicatrix lay cloſe and tranſverſe as a ſmall ſeam. Within his Noſe there was a great vacuity, but nothing of *Caries* or bare bone, nor did he blow any thing of filth as formerly he had done. And that his Palate and Tonſils were as well, appeared both by his voice, eating and drinking. His Legs were alſo as free from Nodes as pains. The Phyſicians judged him Cured, yet would not yield the Cure to the Salivation: but in other caſes of that kind, where I afterwards propoſed Salivation, they would reply upon me, that I did not Salivate ſuch a one, meaning this Patient: To which I alway anſwered, The Cure conſiſts not ſo much in the ſpitting a great quantity, as in putting the matter upon ſuch a ferment as might fit it to be carried off by the Sudorificks, Purging, *&c*

This Perſon retired afterwards into the Country, and returned to *London* at the end of two years, and acknowledged to me his Cure by ſetling Thirty Pounds a year upon me during his Life, and paid me Sixty Pounds for the two years paſſed.

I am not ignorant that there are a people who pretend to Cure all the forementioned Species of *Lues Venerea* without running ſuch long Courſes, or keeping their Chamber: But it is their undertakings which make us ſo much work; yet truly, I do believe, that all thoſe who are of a fleſhy and ſtrong Conſtitution, may be Cured without Salivating by Unction, if they would patiently ſubmit to ſo ſtrict a Courſe of Diet, *&c.* as that way requireth.

OF

Chap. V.

Of Gonorrhœa.

Gonorrhœa in general may signifie any flux of Seed from the body; but custom hath appropriated it to that which is involuntary. *Gonorrhœa*, what it is.

The Antients have confined that appellation to a loss of Seed which happens without erection or *tentigo*; or if you will have it in *Celsus* his words, *sine venere vel nocturnis imaginibus*. But Moderns have given a larger account of *Gonorrhœa*, and do find many differences of it.

As *First*, That which comes from a fault of the vessels; as *first*, from natural coldness or great refrigeration, in which case they lose their retentive faculty; or *secondly*, which is more frequent, from friction and masturbation among young boys (when they first come to puberty;) *thirdly*, from violent straining; *fourthly*, from the laxity of the seminal vessels in general; *fifthly*, from erosion of the caruncle in the *urethra* which covereth the exit of the *vesiculæ seminales*, and *vasa deferentia*, and is indeed the sphincter of them; *sixthly*, in epileptick cases we find *profluvia seminis*, which seem to be caused by the strength of the Convulsion. Its differences. 1.

Secondly, That which cometh from fault in the matter of the Seed, *viz.* 1. when it is too crude, thin and cold, and so weeps away insensibly; 2. when it is sharp and comes away either with titillation or pain; sometime to the erosion of the *Urethra* and the excoriation of it; 3. when it is infected with a virulency in the *Lues Venerea*. 2.

It is this latter *species* that is the most usual imployment of our profession, the diseases of those parts being most frequently gotten by the too predominant vice of the age. I shall therefore confine my discourse to that subject, not only because it is one of the first symptoms of the *Lues Venerea*, but also for that through the Patients slighting and neglecting its cure, many ill accidents do happen in process of time, which renders it much more difficult to cure than any other *species* of the Pox.

A virulent Gonorrhœa *is an involuntary emission of seed, occasioned by venom contracted from an unclean woman.* Definition.

Seed thus emitted is doubly peccant, both in *quantity* and *quality*. The *latter* is alway proportionable to the degree of the infection and to the encrease of putrefaction.

The *quantity* is likewise always far greater than the vessels in their natural estate are able to breed or to discharge, which hath caused a great deal of contention among Physicians about the seat of this disease, or the original of it. And indeed it is very odd to consider that a man upon coition shall sometimes have nothing outwardly appear upon him, either by way of chancre, *bubo*, or any other evil, but shall find his urine hot, with a flux of sharp and acrimonious seed from within, the continuance of which shall spend his strength, erode

the *urethra*, make caruncles and other miſchiefs. On the contrary, if ſtopped, ſhall cauſe inflammations in the teſticles, or elſe a *bubo* or chancre; and if theſe happen not, ſhall infect the whole body, breaking out in ſcabs and ulcers, or making nodes, intolerable pains, rotting the bones, *&c.*

Where this venom ſhould enter, what parts it ſhould originally infect, and how inſinuate it ſelf, and afterwards cauſe ſuch great ſeparations of ſpermatick matter, *&c.* is worth our while to enquire.

The way of its entrance in a woman is intelligible enough, but in a man it can be no other than either the paſſage of the *urethra*, or the pores of the skin of the *penis*, *pubes* and *inguina*.

Manner of contracting it, 1. In Men,

The former ſeemeth not very likely, becauſe it is not ſuitable to many other circumſtances of the diſeaſe, which doth ſeldom or never originally infect the *urethra* it ſelf, or the *proſtatæ*, *&c.* and never aſcends into the bladder; whereas on the other ſide we find viſible affections of the *glans*, *præputium*, *inguina*, *&c.* to be the firſt effects of the infection.

We have therefore reaſon to believe that the venom lurking in the *vagina uteri* of an infected woman, doth upon the friction and warmth that happens in coition faſten upon thoſe parts which it toucheth, *viz.* If it ly high within the *vagina*, or the *penis* enter not far in coition, the *glans* and prepuce ſuffer to the production of a Chancre. If the coition were cloſer, and the venom have poſſeſſed the *labia pudendi*, then the whole skin of the *penis* is infected, and the *pubes* it ſelf; where inſinuating into thoſe pores, it doth not produce ſo viſible effects as it doth in the prepuce and *glans*, becauſe the skin is thicker. But then it is tranſmitted not only into the maſs of blood in general, but alſo into the ſpungy glandules of the *inguina* in particular. If theſe or either of theſe be ſufficiently ſwelled, and nature ſtrong, the venom may diſcharge here; but if this happen not, then it creeps into the blood, and there produceth fermentations ſuitable to its nature. The matter of the venom being originally corrupted ſeed, doth therefore raiſe ſeminal fermentations, but withal one that is peccant after the nature of the venom that excited it; by which means it happens that ſpermatick matter of a vitious ſort abounds in the blood, exhauſts it of its beſt ſpirits, and derives the flower of it to the ſeminal veſſels. This matter is too much and too ſharp to be long contained there, where it immediately provokes and ſtimulates nature to an excretion; and according to the degree of its acrimony and corruption the ſeed will be more or leſs, thicker or thinner, white, yellow, green, *&c.*

I know *Bartholinus* hath made a *Gonorrhœa* to be nothing elſe, but an Ulcer of the *proſtatæ*. Which Opinion is ſufficiently confuted by Doctor *Wharton*, who gives him the inſoluble objection of the Tumour of the Teſticles, which happeneth alway upon the untimely ſtopping of it. *By the pounding up of the water, it is eaſie to find which way the current came.*

2. In Women.

In Women, the manner of the Infection is much more intelligible. Where the Infection of a corrupt venemous Seed enters into an *Uterus*, that is heated partly by coition, and partly by its own appetite, it is greedily ſucked in, and as fatally to the misfortune of the Woman. There its firſt attacque is upon the innermoſt or glandulous membrane of the Womb, uſually acuating its ferment, and cauſing a large precipitation of *ſerum* from the blood. This is at firſt by modeſt Women miſtaken for a *fluor albus* (unleſs the matter have been ſo highly virulent as to cauſe immediate inflammations) and is ſo treated till worſe Symptoms ariſe, and all is betrayed. What thoſe are, we have already ſhewed you in part, and more will appear hereafter.

Signs of it in Men;

The preceding ſign of it is heat in Urine, then ſucceedeth the Diſeaſe it ſelf, *viz.* an iſſuing of white matter in ſmall quantity, which by degrees increaſeth,

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and groweth more corrupt and virulent, changing its colour ſomewhat to a yellow or green: and about this time it is accompanied with a painful erection, and for the moſt part with a contraction or pricking in the *Urethra* under the *frænum*.

In Women. In Women alſo heat of Urine is felt with a dropping of matter from the Womb, at firſt reſembling a *fluor albus*, but after a few days it increaſeth, and becometh purulent and fetid, with diverſity of colours, making an inflammation with excoriation; alſo a bearing down of thoſe parts, and pain in the back.

Prognoſtick. A *Gonorrhœa* is more or leſs difficult of Cure, according to the malignity from which it received its Original. Thoſe that become ſuddenly virulent, and accompanied with *ſtranguria*, are moſt difficult to Cure. If they do ſtop without any manifeſt cauſe, either a Chancre ariſeth, or a *hernia humoralis*. If the Cure be ſlubber'd over, or long delayed, caruncles ariſe in the *Urethra*, and in progreſs of time a carnoſity, *&c.*

Cure. In the Cure of this Diſeaſe, we ought to have a ſpecial regard to the accidents above-mentioned, *viz.* inflammation, excoriation, *ſtranguria*, *&c.* Therefore in the firſt place, we endeavour to contemperate the heat, then purge off the vicious humours: afterwards by moderate detergents and deſiccants cleanſe and dry the diſeaſed parts, and reſtore them to their natural temper.

In order to the contemperating of the heat, and acrimony of the humours, a cooling and moiſtening diet ought to be preſcribed, *viz.* Broaths of Mutton, Veal, Chicken, *&c.* wherein may be boiled Endive, Lettice, Purſlane, Sorrel, *&c.* Barley-cream, Grewels, Panados are alſo proper during the pains. Their drink ought to be Ptiſans, Emulſions, Juleps, or medicated Ale: a ſmall Ale, or white Wine diluted with water may alſo be permitted.

All exerciſe of the Body is prejudicial to their healths, and conſequently their rambling abroad prolongs their Cure.

A quiet mind, with a patient ſubmiſſion to their Phyſician and Chirurgeon is alſo required: and that they forbear Venery, as they value their own and their Miſtris's healths.

The Evacuation may begin with a Clyſter of the common decoction *cum electuario lenitiv.* ʒij. *butyri recentis & ol. amygdal. an.* ℥jſs. *cum vitel. ovi.* You may afterwards let them blood in the Arm if you judge it neceſſary. Then purge them with *elect. diacathol. diaprun. ſolut. diacaſſia cum manna*, or with a decoction *caſſiæ fiſtulæ, tamarind. hord. mundat. liquirit. florum trium cordial.* to which may be added *manna, ſyr. roſ. ſolut.* &c.

After purging, it will be neceſſary to diſpoſe the humours to quiet by ſome anodyne draught: Emulſions are alſo proper during the whole Courſe. Of which ſort this may be an Example. ℞ *ſem. canabini* ℥jſs. *ſem. quat. frig. maj. an.* ʒj. *ſem. papaver. alb.* ʒij. *amygd. dulc. excort. n.* 16. *decoct. hordei q. ſ. fiat emulſio; dulcoretur cum ſacchar. albiſ. aromatizetur cum aqua cinnamomi: ſumat* ℥vj. *horâ ſomni, repetatur ad libitum.*

If the heat of Urine, and other accidents increaſe, it may be neceſſary to give ℈j. *calomel.* in a *bolus*, with ſome of the forementioned Electuaries, and to repeat it as you ſee cauſe once in two or three days.

If by theſe the accidents do not remit, bathe them in a *ſemicupium*, with an emollient decoction, or milk and water, and to prevent eroſion in the *Urethra*, inject *decoctum hordei*, wherein hath been boiled *ſem. althææ, cydonior.* or ſome of the leſſer cold ſeeds; and if you will, you may anoint thoſe external parts with *unguent. refrigerat. Galeni.* But do not inſiſt too long in the uſe of lenitives, leſt a Chancre ariſe; but purge off thoſe vicious humours with *pul. cornachini, pil. cochiæ, Rudii, pulver. diagridii, troch. Alhandal.* &c. with or without

out *calomel.* and if there be required ſtrong revulſion, vomit them w th *infuſ. croc. metallor. mer. vitæ*, or with a few grains of *turbith minerale.*

The virulency thus removed, the uſe of Turpentine comes in requeſt to deterge and heal, which would not be ſo reaſonably admitted ſooner, leſt through its heat and tenuity of parts it lead down the impure matter, and burthen the diſeaſed parts. It may be given to the quantity of a drachm, two or three, waſhed in *aq. plantag. parietariæ*, &c. adding a few grains of *camphire* to it; or you may add purgatives to it, *viz. pul. rad. jalapii, trochiſci Alhandal. diagridii*, &c. Or, ℞ *terebinth. lot. in aq. plantag.* ʒj. *acidi tartari* ℈j. *corn. cervi uſti, ocul. cancror. diagridii an.* ℈ſs. *f. Bolus:* Or ℞ *terebinth. Venet. lot. in aq. roſ. rub.* ʒij. *tartari vitriolati* ʒſs. *ſalis ſuccini, rhab. pul. an.* ℈ſs. *cum pul. glycyrrhiz. f. Bolus.* And in its more decreaſe: ℞ *ſalis prunellæ* ʒiij. *crem. tartari* ʒvj. *camphoræ* ℈j. *terebinth. Cypræ.* ʒijſs. *ſumat ad quant. caſtaneæ mane & veſperi.* In caſe of relapſe, add *pul. rad. jalapii* to it.

At this time, Clyſters of *terebinth.* are proper, which in the time of its virulency would be miſchievous.

If by ſome of the foreſaid Medicaments, the *Gonorrhœa* be not perfectly cured, you may preſcribe aſtringents. The time of giving them is in the very declination of it, when there only appeareth a little thin wateriſh humour which glueth the entrance of the *urethra.* If you give them ſooner, you may ſtifle in the matter, and raiſe a *hernia humoralis.* The aſtringents uſually preſcribed are, *Bol. armen. ſang. dracon. maſtich. corn. cerv. uſti, oſ. ſepiæ, croc. mart. aſtringentis, troch. alkekengi*, &c. made into Pills: *viz.* ℞ *ſuccin. maſtichis an* ʒij. *ſang. dracon. lap. hæmatit. coral. rub. an.* ʒj. *balauſt. ſem. plantag. an.* ʒjſs. *croci martis aſtring.* ʒj. *pulveriz. omnia, & cum balſ. Peruviano & ſyr. cydon. f. maſſa pilul. doſ.* ʒſs. *ad* ʒj. After which the Patient may drink a draught of the following decoction: ℞ *folior. polygon. millefolii an.* Mj. *rad. althææ, nymphææ, an.* ℥j. *flor. roſ. rub. papaver. rhead. an.* Pj. *ſem. quat. frig. maj. an.* ʒiij. *ſem. plant. portulac. lactucæ an.* ʒj. *ſem. hyoſcyam. papaver. albi an.* ʒiv. *baccar. myrt. ſumach, ſem. halicacabi an.* ʒij. *f. decoctio, in ſ. q. aq. fontis*; *colaturæ adde ſyr. cydon. de roſis ſiccis.*

1. Obſervation. of *Gonorrhœa.* If after the *Gonorrhœa* be cured, you ſuſpect you have not enough ſecured the Patient from the malignity of the Diſeaſe, you may purge him with ſome of the forementioned Catharticks with *Calomel.* after which you may proceed with Sudorificks; as hath been ſhewed in the former Obſervations.

One came to me, complaining of a heat in his Urine, with a ſuſpicion of a *Gonorrhœa*, contracted as he ſuppoſed the night before. Upon view of the *penis* there appeared a redneſs on the end of the *glans*, and he cruſht out a moiſture like matter. I concluding it a *Gonorrhœa* began the cure without delay. In the firſt place I let him blood, and ſome hours after adminiſtred a Clyſter. I preſcribed him that night a barly-cream for his ſupper, and in the morning purged him with *manna* and *cremor tartar.* in Whey. The next morning the *Gonorrhœa* appeared viſibly, and his Linen was much ſtained with the matter. We repeated the hordeat that night, and preſcribed him ℈j. *calomel. conſ. cichor.* ʒſs. *mſ.* which he took early in the morning, and about three hours after a draught of the *decoct. tamarindor. &c.* as it is preſcribed in the Method of Cure, and ſome hours after that drank ſo much more of the decoction, by which he was well purged. That night I laid him to reſt with an anodyne draught. The next morning I found the *Gonorrhœa* increaſed with heat in Urine and painful erections. I repeated the former Apozeme, and to prevent eroſion I injected the *decoct. hordei*, as is above mentioned, and repeated at night the anodyne draught: but finding the accidents ſtill to encreaſe I preſcribed him the morning after *calomel. gr.* 15. *turbith gr.* 6. with *conſ. roſ.*

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in a *bolus*, with a draught of Posset-drink after it: and in case he vomited, to drink Posset-ale after each vomit. But he had formerly taken much Mercury, and this dose moved him little. A Clyster was administred that afternoon, and at night an emulsion *ex sem. canabin. &c.* which he had liberty to drink as often as he pleased in the night. The second day after I repeated *turbith min.* The next morning I perceived a remission of pain, *&c.* which I imputed to the mercurial dose, and would gladly have repeated somewhat of that kind: but to avoid fluxing I purged him the next day after with *pul. cornachini*; it worked plentifully. I repeated it again the next day with ℈j. *calomel.* and at night he drank the emulsion as before. Thus the virulency and accidents were checked. From that time I purged him with that Electuary of *sal. prunel. cum terebinth.* but observing it to run again, I added *pul. jalapii* to it; and by the repeating that, and afterwards the same Electuary as it is prescribed without Jalap, I cured the *Gonorrhœa.*

I was sent for to a man grievously afflicted with a *Stranguria.* He had been let blood and purged with lenients; he had also drank emulsions, and bathed often in a *semicupium*, but without remission of pain. Upon this information, and assurance that he had not the Stone, I suspected it might arise from some *Gonorrhœa* suppressed, but he would by no means acknowledge that. However I gave him early next morning ℈j. *calomel. cum conf. cichorei* in a *bolus*, and a Clyster that afternoon. It gave him three or four stools. That night I prescribed a draught of emulsion. The next morning I found him much relieved. I gave him alternately two doses more as at first, with Clysters in the afternoons, and continued the use of emulsions, and thereby freed him of the *stranguria.* A day 2 or 3 after he came to me, and shewed me a *Gonorrhœa* weeping. It had been too soon stopt by astringents, and that caused the *stranguria*, which now returned again, but with no great malignity. I purged him with the Electuary *ex terebinth. sal. prunellæ cum pul. jalapii*, and afterwards I confirmed the Cure with the same Electuary *sine jalapio*, and the *decoct. millefolii, &c.* casting up an injection at last of a solution of *mel. Ægyptiac.* in *aqua equiseti:* by all which he was cured. 2. Observation.

One came to me diseased with an involuntary effusion of matter; it seemed to me a Venereal *Gonorrhœa*, but he having consulted others who thought it arose from some scorbutical affection, I advised him to put himself into their hands, my knowledge extending only to the cure of the venereal one: and supposing it to be so, yet I could not hope to cure it in so few days as they had promised him. Thus we parted, but after a longer tryal with them than was promised, he returned to me again not better than at first. Upon which consideration I undertook to serve him as well as I could. He had been sufficiently treated with lenient purgatives. I began with a dose of *pul. cornachini*, which purged him at least 15 or 16 times. That night I disposed him to rest with an anodyne draught. The next day he was less pained in making urine, and the running was lessened. Upon which account I purged him more moderately, but that way of lenient purging gave way to the encrease of the virulency; which being also observed by the Patient, I purged him with more large doses, and those of the stronger Catharticks, *viz. pil. Rudii* with *calomel.* and sometime with *pul cornachini*, or the Electuary *ex terebinth. cum jalapio.* By the use of this last I purged off the *Gonorrhœa*, and stopt the running by some few doses of *pil. croci martis astringentis.* He continued well about a month, then it relapsed again. Upon sight whereof I repeated the former course, and stopt it; yet it brake out afterwards seven times for the space almost of a year. I cured it as often, by purging him with the Electuary *cum jalapio*, so that it continued well at last. Whether it was venereal at first, I cannot 3. Observation.

cannot affirm: Nay ſo far as I could judge by his habit of body and manner of living, he was not that way inclined; but what way ſoever it proceeded, he was perfectly cured and continueth ſo.

4. Obſervation. I was commended to a Patient who lay much afflicted with a virulent *Gonorrhœa* accompanied with the ſevereſt accidents, *viz. Priapiſmus* with contraction of the *penis*, *ſtranguria*, *&c.* inſomuch that he was neceſſitated to riſe often in a night to cool himſelf. He had been in ſuch hands as had purged him and let him blood. I began with a Clyſter, and the next morning gave him Lenitive Electuary, *diaprun. &c.* with the addition of *calomel.* and bathed him that day, and preſcribed him Emulſions, and proſecuted the foreſaid method of bathing and purging 4 or 5 days with little remiſſion of the accidents. Wherefore I left off bathing, and preſcribed him gr. iij. *mer. vitæ* in a pill, which vomited him much and purged him. I diſpoſed the Patient to reſt the following night with gr. j*ſſ*. *Laudan. aq. cinnam. hordeat. & aq. papaver. cum ſyr. paralyſeos.* The next morning I preſcribed him an emulſion made with Chicken broath, as well to nouriſh him as contemperate the acrimony. I alſo repeated emollient Clyſters, ſuch as have been ſet down in the Method of Cure. Having thus ſomewhat refreſhed him, I preſcribed him *calomel.* ℈j. *turbith min. gr.* iv. which vomited him twice that day. I kept him to Chicken-broath and Clyſters, and at length repeating theſe Mercurials, I freed him of all thoſe accidents; and with the white Electuary *ex terebinth. cum pul. jalapii* I purged off the *Gonorrhœa*, and with the other *ex terebinth.* the aſtringent Pills, and *decoct. lig. lentiſcini cum rad. biſtortæ, conſolid. tormentillæ, &c.* I concluded the Cure. This very man was the moſt ſeverely afflicted with the foreſaid *Gonorrhœa* I ever ſaw: yet ſome years after was again clapt, and paſſed under ſeveral hands till the malignity ſpread it ſelf all over his head, face and body, and was at laſt Cured by me.

5. Obſervation of *Gonorrhœa.* with Chancre. One of about 30 years of age of a full body, came to Town diſeaſed with Caruncles, intending to be my Patient; but within a day or two after he came to me with a recent *Gonorrhœa* contracted the night before. I began the Cure that very inſtant by letting him blood, and preſcribing a Clyſter that afternoon, and proſecuted the courſe by emulſions and purging. But the Patient being irregular, the *Gonorrhœa* became highly virulent with all the accidents of pain, *&c.* and whilſt he was purging with *pul. cornachini* and *calomel.* a Chancre appeared between the Prepuce and *Glans* very big and hard. He pretended it roſe that night. I gave him the next morning a doſe of *turbith min.* which vomited him 5 or 6 times, and purged him twice. I dreſſed the Chancre with a Pledget dipt in *lac ſublimati*, I repeated the *Turbith* the third day, and afterward again till I ſalivated him, I thinking that way the moſt ſpeedy in ſuch Libertines. During his ſalivating an Artery amongſt the great Teeth on the right Jaw burſt forth, and bled very much before I had notice of it: I ſtopped it by directing him to hold the yolk of a hard roaſted Egg between his Jaws cloſe upon the place where I ſuſpected the Artery to lye, and ſo by compreſſion reſtrained the bleeding. The next day I ſet him in a clear light, and diſcovered the blood to ariſe by a carious tooth which I ſtopped with Lint dipt in *ol. vitriol.* ſo that it bled no more. During the Salivation the Chancre reſolved and the *Gonorrhœa* ſtopped. In the declination of the Salivation I purged him with the bitter Apozeme, and afterwards finiſhed the Courſe with *decoct. ſarſæ, &c.* ſweating him. Whilſt he was in this courſe of ſweating, the *Gonorrhœa* appeared again weeping, but the malignity being waſted, I cured it with the white Electuary, and aſtringent Pills.

6. Obſervation of a *Gonorrhœa* with Chancre. One of about twenty three years of Age came to me with a *Gonorrhœa*, accompanied with Virulency. I adviſed him a Clyſter that Evening, and the

next

next morning let him blood, and prescribed him a laxative ptisan (as it is set down in the method of Cure) to purge him moderately, which he took and repeated three or four days, taking ℈j. *Calomel* every other night. During which I prescribed a lenient injection of *summitat. malvar. violar.* decocted in *aq. hordei.* Those accidents of pain thus mitigated, I purged him with *pul. cornachini* and *calomel.* and after its operation, I prescribed him an emulsion *ex sem canabini*, &c. and repeated the use of the Purgative and Emulsion, till I had taken off the virulency. Then I sent him a Pot of the white Electuary *ex terebinth. jalap. &c.* and a draught of the emulsion after it each night. During this Course, the Patient supposing himself secure, took his liberty abroad in eating and drinking, till a great inflammation happened on the prepuce with a swelling and excoriation of the *glans*, also a large Chancre between the prepuce and *glans*: Upon sight thereof I let him blood, and fomented the prepuce with *decoct. summitat. rubi, plantag.* &c. and dressed him up as is usual in such Cases, and gave him ʒij. of *manna* with *crem. tartar.* next day in a draught of Posset-drink. It purged him seven or eight times. The second day after I prescribed him a Dose of *turbith*, and a Clyster that afternoon, and afterward proceeded in the repeating *turbith. min.* and raised a light Salivation, by which the hardness was resolved, and the Chancre Cured. After which he drank a *decoct. sarsæ*, and observed a strict diet, and sweat as hath been said in the like cases. After I had thus Cured him, a weeping of the *Gonorrhœa* appeared again; it was no more than I expected, it commonly following after such courses of Physick: but there being no malignity in it, the Cure was soon effected with that white Electuary *cum terebinth. &c.* and he continued well.

A young Woman newly married, complained the second day after of a heat in her Urine, which encreasing upon her with a *fluor albus*, I was sent for, and heard her complaints, and saw some linen she had worn, much stained with matter. I advised her to bathe the excoriated parts with milk and water, and to dress them with *unguent. refrigerant. Galeni*, prescribed her an emollient Clyster, emulsions, *&c.* and took my leave without discovering to her the nature of her Disease. A day or two after, I took an opportunity to acquaint her Husband with what I had observed of his Wives condition, and questioned his health. After a little demur, he told me, he had some months passed a *Gonorrhœa*, and supposed he had been Cured, but of late, since the complaint of his Wife, he had observed some little weeping, and shewed me somewhat like the reliques of a *Gonorrhœa.* It was inconsiderable, yet seemed enough to infect her. He put himself into my hands, and recommended her also to my Care. I let them both blood, and purged her with a laxative ptisan of *Cassia, tamarind.* &c. and sent her an injection of a solution of *lap. medicam. Crollii in aq. plantag.* a dram to a pint, and continued the use of emulsions, and afterwards bathed her some days in a *semicupium*, and kept her body soluble with lenitive Bolus's, to which I added 10 or 12 grains of *præcipitat. alb.* After I had thus contemperated the heat, and healed the external excoriations I purged her with *diagridium*, and *præcipitatus alb.* some days, increasing the one or other, and sent her *decoct. summitat. rub. equiset. plantag.* &c. with a solution of *unguent. Ægyptiac.* these parts requiring powerful dryers. After I had thus purged off the malignity, I prescribed her the purging Bolus of *terebinth. cum pul. jalap.* and afterwards confirmed the Cure with astringents, as in the method of Cure hath been set down. Her Husband was cured by purging with the foresaid Electuary. 7. Observation.

They have both enjoyed their healths well since, and have Children.

Whilst I was Curing one of a *Gonorrhœa* by purging, *&c.* and thought I had Cured him, a Tumour rose in the left Testicle. Upon complaint of it I sent 8. Observation.

for a Truſs, and the while let him blood in the Arm, and made up a Cataplaſm of *far. hordei & fabar.* with oxycrate, *mel. commune*, and applyed it. That afternoon a Clyſter was adminiſtred, and the uſe of the Cataplaſm was repeated twice a day; during which he was purged with *diagridium* and *calomel.* by the help whereof the Tumour in the Teſticle diminiſhed daily, but by the ſharpneſs of the *acetum* the *ſcrotum* was heated and bliſtered in ſeveral parts. Upon ſight whereof I directed ſome Vinegar to be prepared with Litharge, and made up a Cataplaſm with it inſtead of the Oxycrate, and applyed that, defending the veſication with pledgets of *unguent. album.* By this Cataplaſm the humour was dryed up, and the Teſticle reſtored to its natural tone; but the *Gonorrhœa* diſcovering it ſelf in the mean time, I purged it off as is aboveſaid, and concluded the Cure with the white Electuary, and aſtringent Pills: the Patient drinking a draught of *decoct. lig. guaiaci, lentiſci, &c.* after it.

9. Obſervation. One about eighteen years of Age was afflicted with a ſwelling in his right Teſticle with inflammation and hardneſs. I ſuppoſed it Venereal and riſen from a ſuppreſſion of a *Gonorrhœa*, but he denied it. I let him blood, and ſent for a Bag-truſs, and the while preſcribed a Cataplaſm *ex farin. hord. & fabar. an* ℥vj. *pul. ſummitat. abſinth. flor. ſambuci & chamæmeli* decocted in *oxymel*: It was applyed, and retained cloſe on by a Bag-truſs. By the application of this Cataplaſm a few days the Tumour was removed, and reſtored to its natural ſtate, but before this Tumour was quite reſolved, I took occaſion to look upon the *Penis*, and ſaw it running; yet the patient perſiſted in the denying it: but before I preſcribed him ought in order to the Cure, it was more demonſtrable, and he acknowledged it, I purged him with *extract. Rudii & calomel.* four or five days, and afterwards with that Electuary *ex terebinth. cum jalapio*, by which I purged off the venemous matter, and with Clyſters of *terebinth.* and aſtringent Pills I cured him.

10. Obſervation. A young Fellow was brought to me, having a great inflammation and ſwelling in his right Teſticle; he acknowledged that it aroſe upon the Cure of a *Gonorrhœa*. I let him blood, and ſent for a Bag-truſs, and the while preſcribed an Anodyne Cataplaſm *ex foliis hyoſcyami* decocted *cum pul. flor. roſ. rub. croco, axung. porcin. medull. panis tritic. cum vitell ovor.* which was applyed and kept on with a Truſs. The next day a Clyſter was adminiſtred, and the dreſſing repeated. The day after he was purged with ℈j. of *calomel.* in a lenitive Bolus. We continued the application of the Cataplaſm till the inflammation and pain relaxed. Then made up a Cataplaſm *ex farin. fabar. hord. &c.* as in the former Obſervation; and from that time I purged him with *pil. cochiæ min. & calomel.* and ſupplyed him with a Box of the ſame Pills, and a Pot of that Cataplaſm to dreſs himſelf: and he finding himſelf well mended, removed to his former lodging, and rambled about his affairs. Fifteen or ſixteen days after, when I thought he had been Cured, he came to me with a Callous Chancre on one ſide between the *glans* and *frænum*, the Tumour in *ſcroto* being reſolved. I confined him again to his Lodging, and purged him dayly with the foreſaid Pills, increaſing and decreaſing the Mercury or Cathartick, till I totally reſolved the Chancre. Then with *decoct. guaiaci* and Sudorificks I concluded the Cure.

11. Obſervation of a *Gonorrhœa*, with *Hernia humoralis.* A man being diſeaſed with a *Gonorrhœa*, put himſelf into ſome hands for Cure, but whether through irregularity in the Patient, or that they were too haſty in the uſe of aſtringents, however ſo it happened, that upon the ſtopping of the *Gonorrhœa* a Tumour aroſe between the Teſticles, but it eſpecially affected the left Teſticle, and the *perinæum* with great inflammation and hardneſs. I let him blood, and adviſed a Clyſter, and preſcribed him a Cataplaſm *ex ſummitat. hyoſcyami, cicutæ, althææ. flor. cham. ſambuci, ſem. lini*, &c. The next day I purged him with *manna & crem. tartar.* in a draught of Poſſet-drink, and

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the day after prescribed him 12 gr. of *turbith min.* which vomited and purged him well. By repeating of the same Dose once in three or four days, and by the continued application of the Cataplasm, I resolved the Tumour which threatned the welfare of the Part; the suppurations in these Tumours commonly leaving an opening into the *Urethra*, which is difficult to agglutinate. After the resolution of the Tumour the *Gonorrhœa* returned. It was Cured by that white Electuary which is purging, and hath *diagridium* in it. During which he drank this following decoction: ℞ *lig. guaiaci* ℥iij. *lentisci* ℥iv. *chinæ nodosæ* ℥ij. *sassafr.* ℥j. *raſ. C. C. eboris. an.* ʒvj. *santal. rubri* ʒj. *rad. tormentillæ, bistortæ, consolid. maj. Ireos Florent. an.* ʒjſs. *passular. maj. enucleatar.* ℥iij. *lig. cassiæ, calam. aromat. an.* ʒiij. *liquiritiæ Hispan.* ℥j. *infundantur, & coquantur in suf. quant. aquæ fontanæ ad* ℔viij. *colat. adde sacchar. rosat. q. s. ad dulcorandum pro usu.*

12. Observation of a sinuous Ulcer in the right Testicle.

A young Fellow having long suffered with a *hernia humoralis*, which had apostemated and broke out on the outside of the right Testicle, and having passed through negligent hands, was at last, as an object of Charity recommended to me by Doctor *Walter Needham.* I looked upon the Tumour, and made a search into the Ulcer, and informed my self that it was not only sordid but sinuous from the production to the lower part of the Testicle. But would not acknowledge that it arose from a *Gonorrhœa*, or upon any Venereal account. He was hypochondriack, and importuned me earnestly to cut off both his Testicles. Whether it was in despair of their Cure, or as a punishment for their offence I know not; but he told me, it was to that purpose he came to me. I seeing him so resolute, advised him to come such an hour the next day, and I would prepare for him. He came and persisted in the same resolution to have them both cut off. I having made dressings ready as for the work began with the ulcerated Testicle, passing my director in the *sinus*, bending it downward, and cut that sinuosity open the whole length, then passed in my probe Scissors to the *sinus* upward, and divided that, and by this opening he began to shrug, and being made sensible of the pain, was well contented that I should dress him up, and cure the Testicle. I complyed, and dressed up the Ulcer with dossils dipt in precipitate, and applyed between the wounded lips *pul. Galeni cum albumine ovi.* But the blood burst forth so forcibly after I had bound it, that I was necessitated to dress it again. I did so with dossils dipt in the Royal Stiptick, and from that instant it bled no more. The second day after I took off the dressings, and seeing the Ulcer sordid, I dressed it with detersives, and having thereby in few days disposed the Ulcer to Cure, I purged him with *pil. cochiæ min. & calomel.* and left the finishing of the Cure to my Servants, who performed it accordingly.

Chap. VI.

Of the ill Conſequences of a Gonorrhœa Cured.

The Conſequences of a *Gonorrhœa.*

IN the preceeding Chapter of a *Gonorrhœa*, I ſhewed you the accidents that Diſeaſe is ſubject to in its recency; I ſhall now declare to you the ſad conſequences that attend it in its ſeeming declenſion, when it is left imperfectly Cured, and is, as ſome of thoſe Blades call it, a weeping, only a weeping not worthy the keeping Chamber.

From which neglect of Cure, thoſe ſeminals from whence the *Gonorrhœa* iſſued are rendered more lax, and in progreſs of time the matter fermenteth upon the old Leven, and becometh much more acrid and malign, diſcharging a matter, as at firſt in the nature of a *Gonorrhœa*, heating and corroding the *Urethra*, from whence Caruncles do frequently ariſe, and are attended with many ill conſequences, of which I ſhall give you a relation, and begin it with that of a Caruncle.

Caruncles. Caruncles are a ſort of looſe fleſh, ariſing in the *Urethra* frequently in the time of a *Gonorrhœa*, by reaſon of the eroſion made by that virulent acid matter; but if that *Gonorrhœa* be well treated, the eroſion is Cured, and thoſe little grains of fleſh dryed up. However their growth is then ſo ſmall, as they are rarely taken notice of till the declining of the *Gonorrhœa*, and then a ſmall weeping with a few rags appearing in the Urine gives the firſt ſuſpicion of them.

If this matter be not timely dryed up, the Caruncles increaſe, and a difficulty of Urine gradually ſucceedeth, and it cometh forth forked, or in a ſmall ſtream dribling: but this happens in ſome people not till many years after the *Gonorrhœa*; for they ariſing from a dry membranous part do grow ſlowly (and do ſometimes waſte of themſelves, or are waſhed off by the Urine) upon which account that trouble in piſſing happening ſometime many years after a *Gonorrhœa*, gives them occaſion to ſuſpect that it ariſeth from gravel; and as the Diſeaſe increaſeth, it is thought the Stone, but by a ſearching candle a more certain diſcovery is made, thoſe Caruncles being to it ſo many rubs in the way.

Carnoſity. If at this time their Cure be neglected, ſome drops of Urine, or *in coitu* the Seed remaining amongſt theſe Caruncles, heateth the part, and increaſeth their growth, and not only renders *them* Callous, but at length the whole *ductus*, and then it is called a carnoſity; which ſtraitning the paſſage ſtoppeth the virulent matter in its motion, whereby it is forced back to the Seminals, in which caſe the Teſticles for the moſt part do ſuffer: but if it be the *veſiculæ ſeminales*, or proſtates which are oppreſt, they inflame, and by adheſion to the neighbouring parts paſs their matter that way, ſometimes through the tunicles of the *Inteſtinum rectum*, and then the matter is diſcharged by ſtool; or it may be, the matter paſſeth through or near the *podex*, and then it is ſuppoſed a *fiſtula in ano*, and this way the Urine is ſometime diſcharged with it. Theſe are the Ulcers which render *fiſtulæ ani* ſcandalous. If the matter paſſeth *in perinæo*, for the moſt part it perforates the *Urethra*, ſometime like a Flute, and the Urine cometh thereout, othertimes it corrupteth within, and diſchargeth the putrefaction into the *pelvis*.

Whilſt the *Urethra* is ſtraitned with a carnoſity, the Urine is frequently ſuppreſt, and then the bladder endeavouring to disburthen it ſelf becomes ſubject

to

to fluxion, and groweth ſometime carnous, and of a ſtrange preternatural ſhape, ſtretching out of the *pelvis*. In the opening ſuch a diſeaſed Body, I ſaw the bladder adhering cloſe to the upper part of the *os pubis*, and that part of the *peritonæum*. In another there was frequently diſcharged a matter with the Urine not unlike corrupt Seed.

One riding a Journey was hurt by the ſtumbling of his Horſe, and became ſo indiſpoſed, that he was brought back to Town. Phyſicians and Chirurgeons were conſulted, and ſuppoſed him bruiſed internally. They let him blood, and treated him accordingly, but without ſucceſs. The day after I was fetched to him, and I found him labouring with great oppreſſion, ſhortneſs of breath, fainting, *&c.* I viewed his body naked, and endeavoured to inform my ſelf of his bruiſe, but there was no ſymptom of any. I ſeeing he was not likely to recover, took my leave, and deſired a Servant of the houſe to give me notice of his death. He died that night, and I went the next morning and opened his Body. All the *Viſcera* were ſound, and no blood extravaſated, but within the *pelvis* I ſaw a great quantity of purulent matter, like that which iſſues forth in a *Gonorrhœa*. I divided the *os pubis*, and opened the *pelvis*, and ſaw near the Proſtates a bag broken, which I concluded to be one of the *veſiculæ ſeminales*. Upon ſearch into the *Urethra*, I found he had been long diſeaſed with the reliques of a *Gonorrhœa*, *viz.* Caruncles and Carnoſity.

The Female Sex do alſo extreamly ſuffer upon the ſame account, the corrupt ſeminal matter frequently excoriating the *pudendum*; whence excreſcences of all ſorts do ariſe, and the ſharp matter dropping from the matrix, frets and ulcerates the external parts of the *labies*, &c. An inſtance of this ſort you may ſee in ſome of the following Obſervations.

The *Vagina uteri* is alſo ſometimes excoriated, and excreſcences frequently grow there of great bigneſs, one whereof I took off very large of the ſhape of a Mulberry.

In others I have ſeen the *vagina uteri* much ulcerated, and diſcharging great quantity of fetid matter with pain and inflammation. The *alæ* of the *pudendum* of one were gangrened, but I removed that, and cicatrized ſeveral of the Ulcers; but one Ulcer within the *Vagina* corroded into the bladder, and a mortification followed, and put an end to her miſery.

Another upon a ſuppreſſion of that corrupt ſeminal matter was ſeiſed with a *dyſuria*: the cauſe not being diſcovered, the kidneys were blamed. The diſeaſe increaſing to a *ſtranguria*, a ſtone in the bladder was ſuppoſed. I was fetched to make a ſearch, but felt none. The accidents of pain, inflammation, *&c.* increaſing, ſhe died. I opened her body, and ſaw the bladder, *vagina uteri*, *& inteſtinum rectum* all gangrened: The *muſculi lumbares*, and thoſe of the *abdomen* looked as if they had been parboiled: The reſt of the *viſcera* were reaſonably ſound.

As from a ſuppreſſion of that malign matter, apoſtemations do ariſe between the interior Tunicles of the *vagina uteri*, ſo I have ſometimes met with ſcirrhous Tumours, which I have ſometimes palliated by Antivenereals, when they were thought Cancers. All theſe miſchiefs increaſed to ſuch height through the ignorance in them that treated them.

Thus I have given you an account of the ſeveral ſymptoms as they ariſe one upon the neck of another, by which you may diſtinguiſh how they differ.

The cauſe of them is alſo apparent, that they ariſe from a *Gonorrhœa* ill managed.

The ſigns of Caruncles I have alſo ſhewed you are diſcoverable by a ſearching candle, they lying in the way give a ſtop to the candle in its motion to the

Baldder.

Bladder. Yet let not that make you over confident that there is no Stone in the Bladder, for it frequently happeneth that there is alſo a Stone therein; therefore you ought to inform your ſelf of the peculiar ſymptoms of that Diſeaſe before you oppoſe it. For ſo alſo from that Stone a dribling of the Urine is common, and in caſe of pain the urine cometh forth forked and in a ſmall ſtream. But in Caruncles it cometh forth more forcibly than in thoſe of the Stone, and they make much Urine at a time, and are in eaſe after they have urined, which doth not happen in the Stone.

A Carnoſity hath the ſame ſigns that Caruncles have, but the urine being more ſtraitned by the carnoſity maketh the ſymptoms the more ſevere, inſomuch as there is frequently a pain in the *glans*, and in ſtraining hard to urine there accompanieth it ſometimes a *prolapſus ani*, which are eſpecial ſigns of the Stone in the Bladder. But the preceding *Gonorrhœa* and ſymptoms of the Caruncles will ſufficiently guide you in making the diſtinction between them two. To diſtinguiſh the Abſceſſes and Ulcers *in Ano* attending this Diſeaſe from thoſe which ariſe from the Hemorrhoids, the Treatiſe of *Fiſtulæ Ani* will inſtruct you.

Prognoſtick. The extirpation of Caruncles is no eaſie work, and if there be a Carnoſity joined with it, the Cure is much more difficult. And ſo accordingly as there are other ſymptoms complicated with them, ſo much more is the Diſeaſe rendered deplorable and difficult to cure.

Cure. In the Cure of this Diſeaſe the ſame method ought to be obſerved in Diet which hath been delivered in the cure of a *Gonorrhœa*; alſo evacuations by Lenient Purgatives: At leaſt you ought to begin with ſuch to prepare the body; as ℞ *hordei mundati* ʒiij. *rad. graminis, polypod. querc. filicis fœm. an.* ʒiv. *ſcolopendrii utriuſque, cichorei, endiviæ cum toto, adiant. hepaticæ an.* Mj. *cort. radic. cappar. mediani fraxini, tamariſci an.* Mſs. *paſſular. ma. enucleat.* ʒiv. *liquiritiæ raſ.* ʒj. *ſem. aniſi, fœnic. an.* ʒſs *coq. in ſufficienti quant. aq. font. ad* ℔iij. *colatura calida infund. per noctem fol. ſenæ* ʒjſs. *agarici trochiſcati, rhei electi an* ʒiij. *ſantali citrini, cinnamomi an.* ʒij. *f. iterum expreſſio mediocris, & clarificetur cum ſucco limon. & gutt. aliquot vitrioli.* In *colaturæ* ʒxviij. *diſſolve cremoris tartari* ʒiij. *ſyr. de ſpina cervina* ʒij. *ſyr. roſ. pallid.* ʒj. *f. apozema.* With this or ſuch like you may purge them five or ſix days, and let them blood if you ſee cauſe. Emulſions and contemperating Juleps may alſo be of uſe to mitigate the heat of Urine. Vomits are alſo of great uſe for revulſion, and thoſe of *Turbith* I have always obſerved to be moſt efficacious. All the Antivenereals preſcribed in the cure of *Lues Venerea* are proper here, we being indeed often neceſſitated to ſalivate by Unction. After which drying Decoctions and Sudorificksare proper as aforeſaid, with purging; and after all we conclude the cure with ſuch as have vertue to heal and fortifie the relaxed ſeminals, of which ſort theſe following are: ℞ *Fol. menthæ* Miij. *milleſolii, plantag. equiſet. an.* Mij. *ſem.* 4. *frigid. maj. confuſ. an.* ʒij. *ſem. plantag. acetoſæ, agni caſti, canabis, papaver. albi an.* ʒſs. *terebinth. Cypr.* ʒvj. *ſacchari albiſ.* ℔j. *lactis recent.* C. ij. *f. diſtillatio.* ℞ *Gum. guaiaci* ʒiij. *terebinth. ſiccat.* ʒij. *rad. biſtortæ, tormentillæ & nymphææ pulv. an.* ʒj. *ſuccini, coral. rub. margarit. lap. Gagati, ocul. & pul. an.* ℈iv. *camphoræ* ʒſs. *terebinth. Cypr. q. ſ. f. maſſa pilular. capiat* ℈ij. *manè & horâ ſomni, ſuperbibendo* ʒiij. *vel.* 4. *aq. ſuperſcriptæ.* Or, ℞ *rad. tormentillæ, biſtorti, ſymphyt. an.* ʒiij. *ſuccini alb. coral. rub. margarit. eboris, cornu cervi uſti an.* ʒj. *gum. guaiaci* ʒij. *ſem. agni caſti, canabin. papaver. albi, plantag. acetoſæ an.* ʒj. *ſem. aniſi, fœnic. coriand. confect. an.* ʒiij. *f. pulv. ſumat* ʒj. *cum lact.* ʒviij. *mane & veſperi.* ℞ *Gum. guaiaci nat.* ʒij. *maſtich. benzoin. an.* ʒj. *mer. dul. ſexies ſublimat.* ʒj. *bragriſiæ* ʒſs. *croci.* ℈j *ol. abſinthii gutt.* 6. *aloes roſati ad pondus omnium, & cum ſufficienti quant. balſ. nat. f. maſſa pilular.*

lar. de qua capiat ℈j. *singul. noctibus in forma pil.* iv. ℞ *colophoniæ ex terebinth. Cypr. in aq. plantag. & ros. rub. ad duritiem coct. mastich. granat. select. an.* ʒß. *gum animæ pellucidissimæ, gum. guaiaci, benzoini, succini albi an.* ʒij. *unguium alcis* ʒj. *bals. Tolutani* ʒjß. *terebinth. è Chio accipienda reliqua, quæ in pulverem subtil. redact. in mortario calido misce, addendo sub finem bragrissiæ* ℈j. *f. massa pil. ex qualibet* ʒj. *formentur pil.* iv. *& usui reserventur: harum capiat* vj. *quotidie manè & vesperi, superbibendo haust. sequent. decoct.* ℞ *rad. sarsaparillæ* ʒvj *cort. ligni sancti* ʒij. *sassafr. rad. tormentillæ an.* ʒjß. *santali rub. citrini ras. corn. cervin. rhinocerot. flor. anthos an.* ʒß. *fol. agrimonii* Mij. *thæ. chinæ.* Mj. *rad. liquiritiæ* ʒjß. *maceris* ʒij. *f. omnium infus. & decoct. in aq. font.* ℔xij. *ad tertiæ partis consumptionem pro potu ordinario.* These were all prescribed by Sir *Fra. Pruyean* to several Patients labouring of these Diseases under my hands.

Having thus offered to you Internals, we shall now proceed to shew you the way of extirpating these Caruncles. The methods thereto proposed by Authors are various: I shall reduce them to two, *viz.* the one by medicaments, the other by meer force with wax-candles, probes of Lead, Silver, or Steel to tear and break them in pieces.

Whilst the Caruncle is recent, you may by the compression of a well proportioned candle crush it to pieces, and by the use of moderate detergent and exsiccant injections dry and heal the part: but if there be an issuing of matter, as in virulent *Gonorrhœa*'s, you must first remove that matter by purging, *&c.* before you can hope to extirpate the Caruncles. Nay, if the matter should flow much upon the use of the Candles, you must forbear further proceeding with them, and make evacuation and revulsion of that peccant matter, as hath been aforesaid, and then proceed again in the work.

In order to the search, you may place the Patient sitting upon the side of his bed, chair or stool, with his thighs opened, and his heels drawn back, so as he do not press upon the *perinæum.* He must also at the same time lean forward with his body. Then make choice of a proportionable candle, and having smoothed the end, and a little bended it, anoint it with oyl (of Lilies if you please) pass it gently in, and move it easily forward, that by the warmth it gets in the *ductus* it may ply accordingly with it. If you meet with a stop, press moderately; if it will not go by, draw it back, and take the exact distance the Caruncle lieth off, and mark it with your nail; then anoint it with Oil, and pass it again into the *urethra,* and when you come at that stop, raise the *penis* with the other hand; if it will not pass over that Caruncle, try another candle made taper at the end: But if you be satisfied that it passeth beyond the Caruncle, it is a good sign, pull it out again; and if the parts be heated, you may inject *decoct. hordei,* &c. and prepare your candles for the consuming the Caruncle. The Medicaments I propose thereto are as followeth: ℞ *cort. mali granat. acid. in umbra siccat. & pulveriz.* ʒij. *aluminis pulver.* ℈j. *emplastri de cerussa* ʒj. *misce super ignem.* Or, ℞ *mer. præcipitat. rub.* ʒj. *lap. calamin.* ʒiij. *vitrioli calcinati* ʒjß. *empl. diachalcith.* ʒvj. *ad ignem liquefacti.* You must scrape off the wax from the end of the candle, and dip the wiek in either of the plasters whilst they are scalding hot; then after they are cold shape them and smooth the ends for your use. This following Medicament hath great credit amongst Authors: ℞ *æruginis, auripigmenti, aluminis rochæ, chalcitidis an.* ʒiv. Infuse them in strong Vinegar, then grind them upon a Marble very fine, dry it in the Sun, and temper it again with Wine-vinegar to the eighth time, drying it each time till it hath lost much of its corrosive quality. ℞ *argenti spum.* ʒij. *olei ros.* ʒiv. *coq. ad empl. consistentiam,* then add of the abovesaid powder ʒij. it being well mixed, and of a good consistence, you may dip the bared ends of your candles in it for the abovesaid use. Your great care in this work must be, that the em-

plaster

plaster be of such consistence as that it adhere as firm to the wick as the Wax, for otherwise it will cause vexatious work. I commonly send a proportion of the foresaid Powder to my Wax-Chandler who mixeth it with a proportionable quantity of Wax, and makes me so many dozen of Wax-Candles; which Candles being so medicated do very often serve me in wearing off recent Caruncles, and also in cicatrizing the part.

If the Caruncles be of an older date, and be so big and tough that you cannot pass with any of the VVax-Candles, forbear farther attempting it, and endeavour by emollient Injections, Embrocations, *&c.* to supple and dilate the *ductus*. ℞ *Rad. althææ, lilior. an* ʒij. *sem. lini, fænugræci contus. an.* ʒj. *coq. in aq. fontis ad* ℔ij. ℞ *Colaturæ* ℔j. *ol. amygd. dul. noviter extract.* ʒij. *m.f.* Inject some of it warm twice or thrice a day with a Syringe, having a thick blunt Pipe. You may also foment the *Perinæum* with the residue of the said decoction; or he may sit upon a Close-stool over some of the same decoction, or *ex radic. & fol. althææ, matric. viol. sem. lini, fænugræci, flor. cham. sambuci, meliloti, summitat. pulegii, origani, &c.* VVhen he cometh off, embrocate the *Perinæum* with *ol. ex pedibus bovinis*, and apply over all some such like Cerote. ℞ *unguent. Agripp. dialth. œstpi, butyri recentis an.* ʒij. *ol. lilior. amygd. dul. an.* ʒj. *sem lini, althæ. pulver. an.* ʒvj. *gum. ammoniaci* ʒij. *ceræ q. s.* To which may be added *Argenti crudi extincti in terebinthina* ʒiij. or that Emplaster *ad salivationem.* After three or four days make tryal again with a proportionable Candle, and if you can pass the Caruncle take the exact mark and pass in a medicated one upon the Caruncle, and leave it remaining there, cut off the end within an inch, and flat that end; then turn that broad end over the top of the *Glans*, and fasten it close with a linen rag: you ought to leave him more of the same Candles fitted for his use, that in case he urine he may take it out and put in another. Whilst he puts in the Candle he must stand somewhat stradling, and bow his Body forward, but as to his posture he will make choice of that to his own conveniency. The best time to begin this work may be at night, the Candle being then likely to stay in its place without disturbance. In the morning when you draw out the Candle inject some lenient decoction, and pass in a white VVax-Candle of a proportionable bigness to the other you drew out, to make good the way you have got, and yet to lenifie the heat in the *ductus*; but if it be not disturbed, go on as you did to wash the Caruncle.

But if after the use of Emollients you cannot pass the Caruncle, you may well conclude it callous. In which case you may pass a *Canula* into the *Urethra* to that Caruncle, and whilst you hold that there steady, you may convey a grain of caustick into the *Canula*, and press the caustick to it; and whilst you hold it there, you will perceive its operation by the pressing forward of the *Canula*. The Caruncle thus consumed, cast in a Lenient injection daily; and if you take notice of his urine, you may see the separation of the sloughs as rags in it. After which you may by the common medicated Candles wear away the remainder, and with Injections cicatrize it. But if after the extirpation of one Caruncle you meet with another behind it, and cannot pass it, nor a *Canula* so far as where the Caruncle lyeth, you may then attempt it by the Leaden Probe. Anoint it first, pass it to the Caruncle, then by pressing upon it break it off. You must expect a bleeding, and it is not done without pain, the *Urethra* being of exquisite sense: that pain sometime accompanied with rigour and fevour. In order to the stopping of the flux of blood you may inject the Royal Stiptick-water with *aq. plantag. ros. rub. &c.* proportionably as you see cause: or in case the pain be great, beat the white of an Egg with *aq. spermatis ranar.* and inject it. Externally you may apply such like defensative. ℞ *boli Armeni sang. dracon. cort. granat. aurant. myrtil. balaust. pul. an.* ʒij.

℥j. *acet. roſ.* ℥ij. *album. ovor. ſuccor. plantag. equiſet. q. ſ. mſ.* But I never ſaw any inflammation or tumour ariſe from the uſe of theſe Probes. Fevour I have ſometime ſeen upon the uſe of them where there was no blood ſhed; in which caſe bleed them in the Arm preſently and preſcribe Clyſters, and forbear the uſe of your Probes ſome days.

After you have torn off the Caruncle, and that the fear of inflammation is over, you may make a ſearch, and if the Caruncle be extirpated proceed in the drying it to a Cicatrix, which may be by a ſolution of *troch. albi Rhaſ.* in any of the forementioned diſtill'd waters, or as I ſaid with the Royal Stiptick. A proportionable thick leaden probe of a fit length and flat head rub'd with quick-ſilver is alſo effectual. Small Probes are apt to be made brittle by the Mercury and break within the *Urethra*. But if you ſuſpect ſome part of the Caruncle remaining, uſe the medicated Candle, and it will not only waſte it, but dry it to a firm *Cicatrix*.

If there be carnoſity with Caruncles, your way is to dilate and ſupple it by Emollients as above ſaid. If a ſuppreſſion of urine happen, a large Clyſter ſuddenly injected up hath frequently forced the Urine out of the Bladder: but if that fail, a Catheter muſt help you, or an inciſion *in Perinæo* through the carnoſity. If a flux of virulent matter be accompanying the *Stranguria*, the laſt remedy is Salivation.

If by reaſon of the long continuance of the Diſeaſe the *Urethra* be ſo ſtraitned with the carnoſity and Caruncles, that the purulent matter cannot paſs forth, which often hapneth when the Urine doth, you may well ſuſpect an abſceſs will ariſe in ſome part; which if it happen within, there is danger of putrefaction. If the matter raiſeth a tumour externally, and it do ſuppurate, yet it commonly leaves incurable Ulcers. Therefore you ought upon the leaſt ſuppreſſion of this matter to make revulſion by Antivenereals; yea rather than to fail, raiſe a Salivation, and proſecute the Cure as his habit of body and greatneſs of the Diſeaſe requireth. And the while make way with Emollients to dilate the *Urethra*, or give vent by inciſion in *Perinæo*, timely to diſcharge the matter. Abſceſs.

The female Sex are not ſubject to ſuch external apoſtemations. The Caruncles do not cauſe ſuppreſſion, nor is the *Urethra* ſo ſubject to them. Sometimes they happen by a ſcalding of the Urine, but they are of eaſier cure. Yet the *Pudendum* is ſubject to excreſcences of all ſorts and figures. The *Vagina Uteri* is alſo ſubject to Ulcers, Excoriation, Excreſcences and ſcirrhous Tumours, with great flux of humours, the *Stranguria* and Inflammation, *&c.* therefore require your great care timely to reſiſt them by Antivenereals. *Mer. dulcis*, and thoſe milder preparations being apt to lead the humours downwards, are not ſo effectual here as the rougher ſort which vomit. How they are farther to be treated by internals, and each diſturbance removed or alleviated by external Medicaments, you may ſee among the Obſervations following.

1. Obſervation of a Caruncle.

One of about 30 years of age, troubled with a weeping and dribling in making urine, came to me. I ſuſpecting Caruncles made a ſearch, and found two little rubs in my way, and behind the Teſticles in *Perinæo* met a full ſtop, which the Candle would not paſs; upon which I drew it out. He had been purged ſufficiently by other hands. I began the Cure with emollient Injections as above preſcribed and fomented and embrocated the *Perinæum*, and after a day or two I carried half a dozen of medicated Candles and made another ſearch and took a meaſure of the place where the great Caruncle lay which made the full ſtop, and left him that Candle with others, ſhewing him how to paſs them in, and encouraged him to make uſe of them in my abſence, and to try what progreſs he could make; alſo adviſing him to uſe the Injection be-

fore and after the use of the Candle, and to continue the Embrocation and Plaster as he saw cause. During which his body was kept soluble by Clysters and healing Decoctions; also balsamick Pills were prescribed. After three or four days I returned, and found the Patient had passed over the stop, but he had a little heated the *Urethra* by over-doing. I then left off the use of the Oyl in the Injection. He would have injected Milk, but I strictly forbad that, in consideration of the mischief I have known it do in curdling in the Bladder. After the heat was calmed, he used the Candles with more moderation, keeping the passage open he had made. One night when he was going to bed I made him a visit and brought with me some medicated Candles, and having first flatted the upper end of one of them I passed it into the *Urethra*, and turned that end over the *Glans*, and with a soft Linen cloath over it bound it close on. He slept with it until towards morning, then pulled it out, and urined. In the morning I made a search and found the passage open. I injected some of the emollient lotion and passed in one of the common searching Candles, and bound it on as the former, and advised him to keep his Bed, or at least his Chamber that day, and in case of urine to pull it out and inject a *collyrium* of *aq. plant.* and *syr. de ros. siccis*, and to put in another Candle the same night armed as before. By this method the main Caruncle wasted, and the lesser which lay in the way to that was consumed by the passing and lying on of the same Candles. I feeling no more rubs left off the use of the Candles, and sent him an injection of *aq. plantag. rubi, equiseti*, wherein was dissolved a few grains of *lap. medicament. Crollii*, by which the reliques of the Excrescences were dried up, as also the weeping, and the Patient remained cured. Thus by shewing the Patients how to use the Candles, they themselves have sometimes prosecuted their Cures at a great distance from me with good success.

2. Observation. One having had many *Gonorrhœa's* and been frequently under Cure of Caruncles came to me. Upon sight of the *Penis* I saw he had an issuing of much matter as in a virulent *Gonorrhœa*. I made a search for my own satisfaction, and met with several excrescences, and a full stop before I reached to the *Perinæum*. The *Urethra* was tender and did not admit the Candle without pain. I began with the letting him blood, and purged him the next morning with Whey, *Manna* and *Cremor tartari*. After which I bathed him four or five times in warm water, keeping his body soluble the while with Clysters, or a bole of *cassia, ol. amygd. dul. syr. viol.* and the like. After he had done bathing I gave him 25 grains of *mer. dul.* at night, and a Clyster the next day, and repeated the *mer. dul.* every other day, and syringed him with a lotion of *aq. plantag.* with a solution of *troch. alb. Rhas.* But afterward observing the *mer. dul.* not to answer my expectation, it having as I perceived been no novelty to him, I gave him gr. 8. of *turbith min.* which vomited him three or four times and gave him half a dozen large stools, by which I believed the Mercury he had taken before worked downward. I ordered him a Clyster of milk *cum vitel. ovor.* that night to quiet his Bowels, and another the next day, and the day after gave him 12 gr. of *turbith miner.* which vomited him four or five times, and purged him twice or thrice. By the repeating of this Medicament twice or thrice, intermitting three or four days between, I lessened that flux of matter very much, but it making his chaps sore I purged it off with the bitter Decoction, and put him into a *decoct. sarsæ, lig. lentisc. rad. consolid. bistort. &c.* and gave him of that Electuary with *terebinth. sal. prunellæ, &c.* also Clysters of *terebinth.* sometimes at night going to bed. Injections of *lap. medicamentos. Crollii* were afterward used, by which the running ceased. I then made a search with a Candle, and having marked the main stop I proceeded in the use of French Candles which were made Taper fashion, and passed one over the great

Caruncle

Caruncle bound it on, and left it lying upon it, and directed the Patient to take it out upon occasion of urining, and afterward to pass it again. By the use of that there was room made for the application of my own Candles, which I armed with that composition of *merc. præcipitat. &c.* and thereby did wear off that Caruncle. Afterwards I met with others, which I also extirpated the same way; and with the solution of *lap. medicamentosi Crollii* and the use of Leaden Probes, I smoothed and cicatrized them.

3. Observation.

I was sent for one night to a man that laboured of a suppression of Urine, with great pain about the *os pubis*. I intended to have passed a Catheter, but saw the head of the *Glans* hard as a Cartilage, and the entrance into the *Urethra* so narrow as I could scarce get in a small Probe. I was at a loss how to relieve him. I presently caused a large pint of milk to be warmed for a Clyster, and syringed it up quick, and of a sudden the urine forced its way out in a great quantity. The Patient supposed himself to have the Stone, but I assured him the contrary, his disease being Caruncles with carnosity, no better than the Pox in those parts, and more difficult to cure than any of the forementioned species of it. I let him blood that night, and purged him the next day with a decoction of *Cassia, tamarind. &c.* with an addition of *Manna, syr. ros. Damasc.* and afterwards bathed him three or four days, and then anointed with the mercurial Unction his Legs, Arms and *Perinæum, &c.* by which I raised a salivation. It lasted about thirty days, during which he made urine with more ease; yet upon search I found the Caruncles, but the carnosity in the *Glans, &c.* resolved. During his salivating I cast emollient Injections into the *Urethra* daily, and afterwards while he was in his course of sweating and purging I began to work with the Candles, and made way with little difficulty till I came into the *Perinæum*, and there I spent some days in endeavouring to pass a small taper-candle without success. Wherefore I attempted it by the force of a Leaden Probe, and brake the Caruncle off. It bled 3 or 4 ounces, but I stopped it by injecting *aq. sper. ranar.* with a few grains of *lap. medicament. Crollii*, then embrocated the *Perinæum* and parts about with *ol. ros. cum aceto*, and applyed an *empl. è bolo* over them. The next morning I found he had not urined much better. I injected again, and passed in a Candle, and perceived that Caruncle eradicated, but I met with another behind which I could not pass, I again used Injections and passed in a taper-candle, by which I gradually proceeded, and afterwards by armed ones I freed that passage, and his urine came away in a full stream. I prosecuted the cure with medicated Candles and drying Injections, and continued the use of sudorifick decoctions and astringent Pills till he was cured. Yet some while after he came to me again complaining that there was a Caruncle near the end of the Bladder which hindered his passing the Candle into the Bladder, such hath been he complaint of others, but that Caruncle was natural.

4. Observation.

One came to me having had many *Gonorrhœa's*, and in his later years much difficulty in Urine. I made a search, and found he had Caruncles, and one within half an inch of the entrance into the *Urethra*. We agreed upon the Method of Cure, and I was to begin my work the next day, but heard not from him till about a year after. It seemed he had been that while in other hands, who had proposed an easier method of Cure but failed. Yet the urinary passage was thereby more enlarged, so that the Patient could better admit of the Candles, and was also the more observant to my Rules; but then again there was a flux of matter which required to be removed. To which purpose I began with a dose of *turbith miner.* and by the repeating of it made revulsion and salivated him. During the Salivation I fomented and embrocated the *Perinæum*, and injected emollient Decoctions, and by Candles prosecuted the extirpation, passed the lesser Caruncle, and afterwards pressing upon the bigger

with a proportionable big Candle I brake it, and permitted it to bleed, and then paſſed a medicated Candle over that broken Caruncle, and by the preſſure of it wore that Caruncle off ſmooth. There was another Caruncle that lay behind this in *Perinæo*, which I alſo made way over by a taper-candle, and afterwards by the preſſure of my medicated Candles I waſted them. During which he paſſed through a courſe of purging, ſweating, *&c.* and finiſhed the Cure by the uſe of Aſtringents as well inwardly as outwardly.

5. Obſervation. A Man who had been long diſeaſed with a weeping *Gonorrhœa* was commended to me for Cure. By making his urine and ſearch I found that he had Caruncles. I proceeded by Injections and Embrocations to make way for my Candles, and cleared my paſſage into the *Urethra* to the *Perinæum*, and endeavoured by taper-candles to make my way over the reſt. But the Patient not keeping his Chamber made my work irkſome to me. Whereupon one morning I took a Candle proportionable to the *ductus*, and having ſmoothed one end I dipt it in Oyl, and paſſed it readily to the Caruncle, and whilſt it was ſtiff I preſſed hard upon the Caruncle to break it, and did ſo; but at that very inſtant the Patient was ſeiſed with a rigour, and in pulling it out the blood followed. I Injected a ſolution of *pul. hol. Armen.* in *aq. ſperm. ranar.* and ſtopt the bleeding; but after that rigour the Patient burned and lay diſtempered all night, and in the morning I found him in a Fever, yet he had no conſiderable pain in the urinary paſſage. I applyed Refrigerants externally to the *Perinæum*, and let him blood, and conſulted a Phyſician. He was brought very weak by this Fevour, but recovered, (as I thank God I never had one dyed upon this account.) From that time he would make no more uſe of Candles, but put me upon the uſe of Injections, of which I tryed many ſorts; the beſt was a ſolution of *lap. medicament. Crollii*, by which he made water better, and to this day enjoys a good health.

6. Obſervation. One about 50 years of age who had laboured long with Caruncles, finding his Urine to come daily much more difficultly away, ſent for me. I made a ſearch and found a rub before I had entred an inch into the *ductus*. I began by purging him with an opening apozeme of *caſſia, tamarind. rad. gran. &c.* and let him blood, then having relaxed the *Urethra* by Emollients I proceeded with the Candles, and by degrees made way till I came to a Caruncle near the Teſticles. I endeavoured to paſs that with taper-candles, and after ſome while made way and applyed armed ones for ſome days, and wore that Caruncle down, and paſſed in towards the *Perinæum*, where the paſſage was extremely ſtrait, and a Caruncle ſtopt our going forwards. In preſſing upon it, the Patient was immediately ſeiſed with a rigour. I pulled out the Candle whole, and without blood. The next day I found my Patient in bed without pain or Fevour; yet I let him blood, and gave him a Clyſter. The day after I purged him with the aforeſaid Apozeme. The next day I made a ſearch, and paſſing a Wax-Candle into that ſtrait paſſage he began again to fall into a rigour. Whereupon I deſiſted, and contented my ſelf in the making good the way I had gotten by putting in a proportionable thick Leaden Probe (which had been rub'd with Quick-ſilver) ſome days, which Probe had a flat head as broad as a three-pence to retain it from ſlipping in. I repeated the uſe of Emollients and mercurial Emplaſters to the *Perinæum*, and withal made revulſion by a vomit of *turbith mineral.* and by repeating it I raiſed a Salivation, which laſted longer than I intended, but it ſerved my purpoſe ſo well as I afterwards made way over that Caruncle in *Perinæo* without danger, and by armed Candles waſted it. Then with detergent Injections and medicated Candles ſmoothed and healed the *ductus*, and left him a free and eaſie paſſage for his Urine, and concluded that courſe of Phyſick with purging, ſudorificks, *&c.*

I was fetched to a young Woman who had been long diſeaſed with a *Gonorrhœa*, and cured thereof, but from the internal excoriation thereby the *pudendum* was over-ſpread with many excreſcences of a ſpongy ſoft fleſh of different ſize and ſhape. Thoſe on the more external parts were callous. I preſcribed the injection of *ſummitat. rubi*, &c. and let her blood, purged her with whey and *manna*, and afterwards with the bitter decoction, ſometime giving her a ℈j. *calomel.* over night in a *Bolus* with *conſ. borraginis.* Having thus as I thought prepared her body, I began to proceed in the extirpating of the excreſcences, but obſerving the fluxion great, I deferred the work, and made revulſion by a doſe of *turbith. mineral.* which the third day after I repeated again, and between while preſcribed Clyſters and lenient purgatives, and added *unguent. Ægyptiacum* to the injections. By this method I diverted the fluxion, and began my work with the cutting off thoſe excreſcences in the moſt external parts, and eradicated them by cauſtick ſtone, and *ol. vitrioli*, and ſo proceeded with one after another as they lay in my way till I was prevented with the bleeding of them. Then waſhed the parts with oxycrate, and ſtopped the blood with doſſils dipt in a ſolution of *lap. medicament.* ſome hours after; the bleeding being ſtopt, I rubbed the remaining roots of them which I had cut off with a vitriol ſtone, then with a pair of ſciſſors or knife, according as they were ſeated cut off the reſt, and ſtopped the bleeding as before, and from that time conſumed the remaining roots by the help of the vitriol ſtone, oyl of vitriol or cauſtick ſtone, and appeaſed the pained parts with *decoct. hordei, ſem. cydonior.* &c. and afterwards cicatrized the ulcerations, as hath been elſewhere ſhewed in the like caſes. But it was a difficult work, and not effected without *turbith mineral.* which was repeated often, and afterwards *decoct. ſarſæ, ſweating and purging*, &c. finiſhed the Courſe.

7. Obſervation of excreſcences.

A Woman of about forty years of Age, of a full body, having been ſome years diſeaſed in the *matrix*, as was ſuppoſed with a Cancer, conſulted me; I made a ſearch, and felt a hard Tumour on the right ſide of the *Vagina Uteri* of the bigneſs of a Pullets egg fixed between the Tunicles, neither ulcerated nor painful to the touch, yet there ſeemed to diſcharge much ſerous matter from thence. There was alſo a deſcent of the *Uterus*. Upon a further enquiry into the cauſe of this Tumour, I perceived ſhe had been frequently ſubject to diſeaſes in thoſe parts, and that they were Venereal. Upon which account I ſuppoſed this Tumour to be ſo, and having well informed my ſelf that the courſes of Phyſick ſhe had taken before were upon another account, I preſuming a better ſucceſs by Antivenereals attempted the Cure, and began with Veneſection, taking about ℥viij. of blood from her Arm. That day a Clyſter was adminiſtred, and the next day I purged her with *elect. diacaſſiæ cum* ℈j. *calomel.* and afterwards repeated *calomelanos* three or four times every other night ℈j with *conſ. roſ. rub.* and preſcribed her an emulſion *ex ſem.* 4. *frigid. maj. cum ſem. papaver. alb. &c.* in a *decoct. ſarſæ*, aromatizing it with *aq. cinamomi hordeat.* and ſweetned it with Sugar. I alſo preſcribed this injection: ℞ *fol. plantag. virg. aureæ, alchimillæ an.* M̃j. *ſummit. centaur. utriuſque an.* P̃j. *rad. iridis* ℥ij. *coquantur in aq. fabror. ad* ℔iij. *colaturæ adde ſyr. de roſis ſiccis*, and *de piloſella an.* ℥ij. *injiciatur manè & veſperi.* Afterwards obſerving that the *calomel.* did work downwards, and rendered the *pudendum* more ſlabby, I gave her a doſe of *turbith. min.* ℈ſſ. which vomited her four or five times, and purged her as often. I repeated it the fourth day, and perceiving the revulſion it made, I increaſed the doſe, and gave it the third day after, and again till it ſalivated her, and thereby took off the fluxion and pains. In the declining of her Salivation, I put her to the drinking of a *decoct. ſarſæ*, and purged and ſweat her with *Bezoard. min. gum. guaiaci*, &c. and by a ſtrict diet concluded

8. Obſervation of a ſcirrhous tumour in *Vagina uteri.*

cluded the courſe, and reſolved that Tumour as ſhe then thought. Whether it totally diſcuſſed I know not, but ſhe hath continued ſince very well.

9. Obſervation of a Gangreen upon ſuppreſſion of Urine.

A Man aged about fifty years, by the ſuppreſſion of Urine and virulent matter was gangrened on the right Teſticle, and that part of the *perinæum* lying next to it, the Urine paſſing thereforth. I ſcarified the gangrened parts, waſhed out the blood with ſalt water, fill'd the inciſions with *merc. præcipitat.* and dreſſed it up with *unguent. Ægyptiac.* hot, with a Cataplaſm over all of *medul. panis triticeæ*, *pul. ſummitat. abſinth. ſcordii*, &c. decocted in Brandy-wine. I then let the Patient blood, preſcribed him a Clyſter, and a Cordial Julep. The next day I ſaw the *Eſchar* ſeparating in *perinæo*, and was ſatisfied that the Urine came all that way. I fomented with the *Fotus* preſcribed in the Chapter of *Gangreen*, and dreſſed it with *unguent. baſilicon*, and a few drops of *ol. terebinth.* mixed with it, and continued the uſe of the Cataplaſm. By theſe applications the ſlough ſeparating I detergend with *mundif. Paracelſ.* and purged the Patient with *elect. lenitiv.* and *calomel.* and preſcribed him a *decoct. ſarſæ*. After deterſion I incarned with the ſame mundificative, adding to it *pul. thuris*, *ſarcocollæ*, *myrrhæ*, *aloes* and *ſyr. de roſ. ſiccis*, and with the Vitriol Stone dryed the looſe fleſh, and cicatrized it with *aq. calcis*, *&c.* In the time of incarning his urine paſſed ſomewhat by the natural way, and at the laſt it paſſed better. The Cure was finiſhed by purging, ſweating, *&c.* as I am accuſtomed to do in ſuch caſes. He is ſince married to a young Woman.

10. Obſervation.

In the year 1652. at my return to *London* from the Battel at *Worceſter*, I ſomewhile aſſiſted that moſt excellent Chirurgeon the deceaſed Mr. *Ed. Molins* in dreſſing his Patients; amongſt which I ſaw his Practice in the moſt difficult caſes of this Diſeaſe, whereof I ſhall give you one of his Operations.

An Old Fornicator, having been long diſeaſed with a Carnoſity, which had reſiſted all endeavours, and in a manner totally ſuppreſt his Urine, ſent for him; he went, and cauſed the Patient to be taken out of Bed, and placed upon a Table, with his Legs drawn up, as in cutting for the Stone; he cut into the *Urethra* near the neck of the Bladder, it was hard as a griſtle. His knife did not readily divide it, but ſo ſoon as he had, the Urine guſhed out, which being diſcharged, he put his finger into the *Urethra*, and afterwards inlarged the inciſion upward more to the *Scrotum*, then dreſſed it up with his green Balſam warm, by which in few days it digeſted, and the Patient was relieved: the lips grew alſo daily ſofter, and the wound healed apace, but all this while the Urine had no other paſſage, the common *ductus* being ſo cloſed up by reaſon of the Carnoſity, that we could not make any way into it with our ſmalleſt probes or candles. Upon which conſideration it was thought neceſſary to keep this opening in *perinæo* for the diſcharge of Urine, and in order thereto it was dreſſed up with a Doſſil, an Emplaſter and Compreſs, which the Patient took off at times to eaſe Nature. But this not ſatisfying him, he frequently complained of his unhappy condition; inſomuch that Mr. *Ed. Molins* being wearied with the Patient's ſolicitation, took me one morning along with him, where again he placed the Patient as before, and attempted to make a way from the *Apex* into the *Urethra*, but it was in vain. Whereupon he cauſed one of his Servants to hold the one leg, and my ſelf the other while he took up the Teſticles, and put the one into my hand, and the other he placed in the hand of his Servant; then with his knife divided the *Scrotum* in the middle (we holding each Teſticle the while in our hands) and cutting into the *Urethra* ſlit it the whole length to the inciſion *in perinæo*; then with a needle and thread ſtitcht the skin over the *Urethra*, as alſo the *Scrotum*, leaving the Teſticles covered, as before, and dreſſed them with agglutinatives, by

which

which they were cured in few days: But the Urine nevertheleſs continued to flow by the opening *in perinæo.*

11. Obſervation. A lean withered old Man, near ſeventy years of Age, having in his younger years had many *Gonorrhœa's*, complained in his later years of difficulty in making his urine, and that he voided much matter. He ſent for me, and would needs have his diſeaſe to be the Stone, and that matter to proceed from an ulcer in his bladder. I endeavoured to inform him better, but obſerving him ſo wiſe, I was well enough contented he ſhould report it ſo, and concerned my ſelf no further with him, than by the preſcribing him an emulſion. About a year after, his urine being in a manner ſuppreſt he ſent for me again; I made a ſearch, and found the entrance into the *Urethra* eaten away below the *frænum* with part of the prepuce, and the paſſage there into the *ductus* difficult to find; and after I got in, it was ſo ſtrait and ſtuft with Caruncles, that I could make no way either by probe or wax-candle. I ordered him preſently a Clyſter, ſuppoſing thereby to force the Urine out; but it would not. I then propoſed the cutting into the *ductus* below, but he would not. The retention of the matter in the ſeminals ſoon after raiſed a Tumour beneath the *Scrotum*, which being exceeding painful, he was contented I ſhould make an opening to let his Urine out. I placed him in a clear light, with his legs drawn up, as in the former Obſervation hath been ſaid, and made inciſion into the *Urethra* near the neck of the bladder: which having done, and ſatisfied my ſelf by my finger, and diſcharge of his Urine, that I had made opening enough, I dreſſed him up with the Spaniſh Balſom, there being no blood loſt in the work, ſave what came from the skin, the *Urethra* it ſelf being cartilagineous. From that time I only dreſſed the wound with a doſſil dipt in the ſame Balſom, and applyed a pledget over it, with an *emplaſt. diachalcit.* and bandage to retain it on. To the ſwelling above I applyed a Cataplaſm *ex rad. & fol. hyoſcyami, cicutæ*, &c. by which the Tumour reſolved, the matter indeed diſcharging with the Urine by the opening. There was not much care taken in dreſſing this Ulcer, for in ſeven or eight days it contracted, and being callous could not unite, if the Urine would have permitted it, but it had no other paſſage. The Patient was hereby greatly relieved, and had no other trouble but to Urine this way, which I thought he would have been well pleaſed with, and rejoyced in the having ſuch an eaſie diſcharge: Yet after ſome months he made me many viſits, maundring as if I had done him a diſcourteſie in leaving ſuch an opening. Whereupon to quiet him, I gave him ſome ſearching candles, and wiſhed him to go home, and try if he could find any paſſage from the *Apex* into the *Urethra* to the Bladder; if he could, I would readily heal that Ulcer *in perinæo*, otherwiſe I wiſht him to conſider how he would Urine: upon which he became more ſatisfied. He lived ſome years after, and died of Old Age.

12. Obſervation. One having been long troubled with a difficulty in Urine, was at laſt ſeiſed with a Tumour *in perinæo* hard and painful. I was fetcht, and ſeeing it would tend to ſuppuration, I dreſſed it with a Cataplaſm *ex rad. althææ. lilior. &c.* and having ſuppurated it, I opened it by inciſion, and diſcharged a quantity of matter. In the dreſſing of it daily I obſerved much gleet, which I diſcovered after a while to be Urine mixed with the matter, and upon ſearch found Caruncles in his *Urethra*. I perceiving the cauſe of the abſceſs proceeded in the Cure with candles, *&c.* as hath been ſet down in the method of Cure; and having cleared that paſſage, and made a free way for the Urine, I made ſearch into the abſceſs, and laid it open by inciſion according to the length of the *perinæum*, and from that time haſtened the incarning and agglutination of the Ulcer as well by internals as externals, and in few weeks cicatrized it ſmooth and firm.

One

13. Obſervation. One having contracted a *Gonorrhœa* beyond Sea, and not being well Cured thereof, in progreſs of time Caruncles aroſe, and a difficulty of Urine followed. After he had ſpent ſome time in endeavouring his Cure abroad, he returned toward *England*; but in his journeying through thoſe hot Countries, an abſceſs aroſe amongſt the ſeminals, and diſcharged its matter under the *pubis*, and afterwards between the Teſticles, and in three or four places of the *perinæum*, and on both ſides of it, by reaſon of which the Patient lay long by the way, and was at laſt with much difficulty brought to *London*. Sir *Fr. Pr.* and my ſelf were ſent for. We ſaw the Patient miſerably emaciated, and ſo diſeaſed as I have ſaid. Decoctions of *ſarſa*, with Pectorals, Emulſions, Cordial Juleps, Balſamicks, alſo lenient Purgatives with *calomel.* were preſcribed, and much pains was taken in the Chirurgery, but he not being capable of the great Remedies, our work proved unſucceſsful, and he removed into ſome of the neighbouring Villages to drink Aſſes milk, and to try how he could nouriſh himſelf in the freſh Air, where I think he died.

14. Obſervation. Another who had ſpent his younger days looſely, languiſhed in his old age with a carnoſity, whereby the Urine was ſtraitned in its paſſage forth, and the ſeminal veſſels within the *pelvis* corrupting inflamed the neighbouring tunicles of the *rectum inteſtinum*, and paſſed its matter into that gut and diſcharged it by ſtool; yet not ſo entirely, but that it afterward made a way lower out between the *anus* and *perinæum*, by which ways he had alſo pollutions. His caſe was deplorable, but the way to cure him if poſſible had been to have made revulſion and evacuation of that matter by Salivation, and afterwards by laying open thoſe *ſinus's* as in *fiſtula ani:* but this was a poor man and not governable. He lived ſome years by the charitable aſſiſtance of Mr. *Ed. Molins* and my ſelf, and at laſt was found dead in the ſtreet.

15. Obſervation. The ſame year I came from the Wars to *London*, I was ſent for to one who laboured of an abſceſs *in ano*. He diſcharged a purulent matter in great quantity. I conſulted the late deceaſed Mr. *Ed. M.* who upon ſearch with his finger *in ano* concluded it to ariſe from ſome abſceſs in the proſtates, and to be the effects of a *Gonorrhœa* ill cured. Which being confeſt, we dreſt the Ulcer, and preſcribed ſome little remedies. A day or two after we met again, made a ſearch with a Candle into the *Urethra*, and diſcovered Caruncles, which was alſo apparent by his piſſing. The Patient was much pained by the ſearching, and deſired that work might be forborn till his Ulcer *in ano* was better diſpoſed. Upon which my friend declined his viſits. The diſcharge of that virulent matter fretted the parts without, and enlarged the opening into the *rectum inteſtinum*, ſo as upon paſſing my finger *in ano* I felt it, and by a curved Probe, found the *ſinus* tend to the *perinæum*. Upon which part I applyed a cauſtick, and afterwards made inciſion into the lower part of the *ſinus*, whereby the matter was partly diſcharged. But he had little advantage thereby, his diſeaſe being Venereal required a ſevere courſe of Phyſick: but he not ſubmitting to it, the matter afterward apoſtemated that buttock, and diſcharged it ſelf through many orifices. He lived ſeventeen years thus and followed his employment abroad.

16. Obſervation. One having been many years afflicted with the reliques of a *Gonorrhœa*, it at length brake its way downward and raiſed an abſceſs under the *pubis*, and through want of ſufficient vent corroded the *Urethra*, ſo that his Urine came thereout. He had alſo a continual weeping of a virulent matter by the *penis*, and paſſed his urine in a ſmall ſtream and frequently forked. I began the Cure with a purging decoct. of *caſſia* and *tamarind. &c.* then let him blood, and afterward purged him with *pul. cornachini* and *mer. dul.* and repeated it once in three days: all which time he continued his own way of dreſſing the

Ulcer

Ulcer with Precipitate. But after I had a while purged him with Mercurials I ſcraped off the cruſted precipitate, and dreſſed it up with Pledgets dipt in *tinctura vitrioli*, and applyed a compreſs over them with good bandage, and renewed the dreſſings once in three or four days, during which I gave him ten grains of *turbith mineral.* by which I made revulſion of that peccant matter. The ſecond day I repeated the *turbith*, and gave him another doſe of the ſame the third day after, and purpoſed to have raiſed a Salivation; but finding the Patient not able to bear any thing of that kind I forbore the further proceeding thereby, and by Clyſters and lenient purgers carried the matter downward. The Ulcer being cicatrized and the *callus* reſolved, I threw off the bandage, and concluded him well thereof. Whilſt I purged him to carry off the Salivation he ſpit the more, and his mouth grew ſore, which put me upon indulging him the longer, but as his mouth healed I purged him again, and kept him to the drinking a decoction of *ſarſaparilla*, *&c.* and began to make way with Candles to extirpate the Caruncles; but the fiſtulous Ulcer being cured, he would not believe the extirpating the Caruncles neceſſary. Wherefore I ſubmitted to his pleaſure, and finiſhed that courſe of Phyſick.

FINIS.

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His Book 1702
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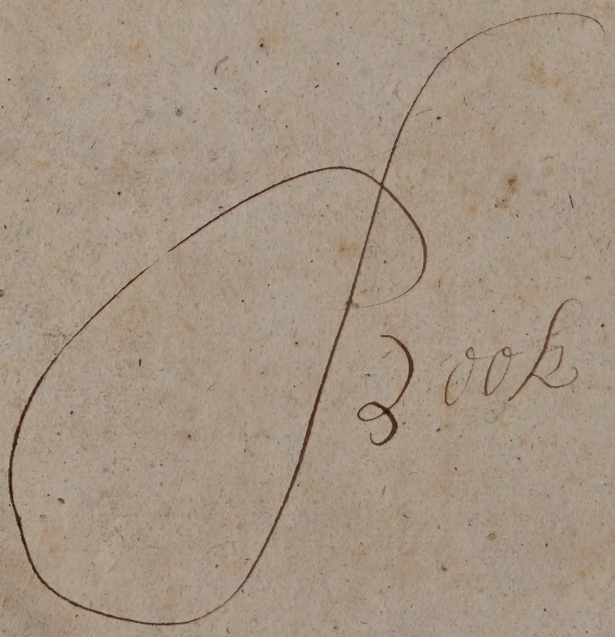

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